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ABSTRACT

This report contains testimony regarding House Resolution 4684, the National Nutrition Monitoring and Related Research Act of 1984. The primary purpose of the bill is to: (1) implement a coordinated national nutrition monitoring and related research program; (2) provide a scientific basis for the improvement of the nutritional status of the population; and (3) judge the nutritional quality of the U.S. food supply. Unabridged testimony is presented from: (1) the Director of Nutritional Sciences, Cornell Universitiy; (2) the Director of Nutrition Services, Rhode Island Department of Health; (3) the Assistant Director of Nutrition Research, National Dairy Council; (4) a nutritionist from the Food Research and Action Center, accompanied by a policy analyst from Bread for the World; (5) the Assistant Secretary for Health, Department of Health and Human Services; (6) the Assistant Secretary for Science and Education, Department of Agriculture; (7) the Administrator of the Human Nutrition Information Service, Department of Agriculture; and (8) the Assistant Surgeon General for Research and Development, Department of the Army. (JD)

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H.R. 4684—NATIONAL NUTRITION MONITORING AND RELATED RESEARCH ACT OF 1984

JOINT HEARING

BEFORE THE

SUBCOMMITTEE ON
SCIENCE, RESEARCH AND TECHNOLOGY

OF THE

COMMITTEE ON
SCIENCE AND TECHNOLOGY

AND THE

SUBCOMMITTEE ON DEPARTMENT OPERATIONS,
RESEARCH, AND FOREIGN AGRICULTURE

OF THE

COMMITTEE ON AGRICULTURE
U.S. HOUSE OF REPRESENTATIVES

INETY-EIGHTH CONGRESS

SECOND SESSION

JUNE 20, 1984

[No. 124]
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Serial No. 98-81
(Committee on Agriculture)

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H.R. 4684—NATIONAL NUTRITION MONITORING AND RELATED RESEARCH ACT OF 1984

WEDNESDAY, JUNE 20, 1984

House of Representatives, Committee on Science and Technology, Subcommittee on Science, Research and Technology, and the Committee on Agriculture, Subcommittee on Department Operations, Research, and Foreign Agriculture,

Washington, DC.

The subcommittees met, pursuant to notice, at 9:36 a.m., in room 2325, Rayburn House Office Building, Hon. George E. Brown, Jr. (chairman of the Subcommittee on Department Operations, Research, and Foreign Agriculture) presiding.

Present: From the Subcommittee on Department Operations, Research, and Foreign Agriculture: Representatives Brown, chairman; Penny, Panetta, Volkmer, Olin, and Evans of Iowa. From the Subcommittee on Science, Research and Technology: Representatives Walgren, chairman; Brown, MacKay, and Skeen.

Also present: Representative Claudine Schneider.

Mr. Brown. The subcommittees will come to order.

We have a number of distinguished witnesses this morning, and we would like to get underway as quickly as we can. First, I would like to welcome all of you who have come today to share your knowledge concerning nutrition, nutrition monitoring, and related research. Our purpose in holding this hearing today is to solicit comments and views regarding H.R. 4684, the National Nutrition Monitoring and Related Research Act of 1984.

I am pleased that these hearings are being conducted as a joint effort by the subcommittees of the Committee on Science and Technology and the Committee on Agriculture. This cooperation exemplifies the broad scope under which the nutrition field falls and the type of coordination which we would like to encourage within our Federal agencies and departments.

As many of you know, these two subcommittees have conducted oversight hearings regarding human nutrition research and monitoring for the past 6 years. These hearings have revealed the lack of and the need for timely, objective data to be made available to policymakers. It is essential to have information available regarding the dietary and nutritional status of Americans and information on other nutrition related factors if policymakers are to effectively spend public funds for related nutrition research and education. Information which could alert policymakers to an emerging hunger crisis is also vitally important.

I am going to abbreviate my opening statement somewhat in order to get to the witnesses more quickly. Without objection, the full statement will appear in the record.

In conclusion, I would like to say that when designing Federal policy regarding nutrition, I feel that it is important not only to work to eliminate outright hunger, but also to be able to assess and learn more about our nutrition needs, learn more about the symptoms and factors leading to nutritional imbalances, and, just as importantly, to remain informed on the nutritional status of all of our citizens. I trust that this hearing today will assist in this effort.

Again, I want to thank all of you who are here today to contribute to our education.

[The opening statement of Mr. Brown follows:]

OPENING STATEMENT OF CHAIRMAN GEORGE E. BROWN, JR.

CHAIRMAN, DEPARTMENT OPERATIONS RESEARCH
AND FOREIGN AGRICULTURE

June 20, 1984

First, I would like to welcome all of you who have come today to share your knowledge concerning nutrition, nutrition monitoring and related research. Our purpose in holding this hearing today is to solicit comments and views regarding H.R. 4684, the National Nutrition Monitoring and Related Research Act of 1984.

I am pleased that these hearings are being conducted as a joint effort by Subcommittees of the Committee on Science and Technology and the Committee on Agriculture. This cooperation exemplifies the broad scope under which the nutrition field falls, and the type of coordination which we would like to encourage within our federal agencies and departments.

As many of you know, these two subcommittees have conducted oversight hearings regarding human nutrition research and monitoring for the past 6 years. These hearings have revealed the lack of and need for timely, objective data available to policy makers. It is essential to have information available regarding the dietary and nutritional status of Americans and information on other nutrition related factors if policymakers are to effectively spend public funds for related nutrition research and education. Information which could alert policy makers to an emerging "hunger" crisis is also vitally important.

In the past, the President or Congress has reacted to hunger and malnutrition concerns by initiating short-term, piecemeal surveys. Some of these surveys periodically obtained data on the dietary and nutritional status of a representative sample of the population. Other studies represented a onetime effort to assess high-risk groups and geographic areas. Studies which have been initiated in the past include: 1935, USDA Food Consumption Surveys, repeated at 10 year intervals and now known as the Nationwide Food Consumption Survey; 1967, the Ten-State Nutrition Survey; 1971, a presidential directive transforming the National Nutrition Surveillance Survey into the National Health and Nutrition Examination Survey (NHANES); 1977, a congressional mandate in the Food and Agriculture Act for a proposal for a Comprehensive National Nutrition Monitoring System. (Unfortunately, this plan does not address the reoccurring need for the continuous collection and interpretation of data.)

After completing the July 1983 hearing which addressed "The Role of the Federal Government in Human Nutrition Research," Congressman McKay, Walgren and I concluded that there is a very real need for coordinating our nutrition monitoring programs and our related research programs. H.R. 4684 is the product of the many statements and testimonies we have heard.

Our task today, is to carefully scrutinize this proposed legislation. We are anxious to hear your views on the design of this program, its possible effectiveness, its ability to supply timely and objective data, the need for and ability of this program to coordinate nutrition monitoring priorities and to provide a central focus and forum for obtaining the views and expertise of the organizations such as you represent here today. The benefit of your insight will enable us to improve the National Nutrition Monitoring and Related Research Act of 1984, and its resulting effectiveness.

Another task of this hearing today is to check the status of the Federal Human Nutrition Research Plan. At the hearings on the Role of the Federal Government in Human Nutrition Research held last July, Assistant Secretary of Health, Edward Brandt, indicated this program would be receiving renewed attention, and that he hoped to have this study "in front of us" at this time. I would like to hear of the advancements which have been made on this plan.

Another effort we are anxious to receive an update on this morning is the Human Nutrition Research and Information Management System. Last year, Dr. Brandt indicated that they were ready to implement the HNRIM system. I am intersted in what further efforts have been made on this system.

When designing federal policy regarding nutrition, I feel that it is important not only to work to eliminate outright hunger, but also to be able to assess and learn more about our nutrition needs, learn more about the symptoms and factors leading to nutritional imbalances, and, just as importantly, to remain informed on the nutritional status of our citizens. I trust this hearing today will assist us in this effort. Again, I thank you all for coming today.

Mr. **Brown**. Mr. Walgren, would you care to make a statement?

Mr. **Walgren**. Yes; thank you very much, Mr. Chairman.

This is the fourth annual hearing on human nutrition research held jointly by the Subcommittee on Science, Research and Technology and the Subcommittee on Department Operations, Research, and Foreign Agriculture. Although the hearing today focuses on H.R. 4684, the National Nutrition Monitoring and Related Research Act of 1984, introduced by Mr. MacKay, Mr. Brown, and myself, this is another stage in an ongoing process that has reflected congressional interest in this area and also, I am afraid, congressional frustration.

The primary purpose of this particular bill is to achieve the implementation of a coordinated national nutrition monitoring and related research program and thereby give our country a scientific basis for the improvement of the nutritional status of our population and a way to judge the nutritional quality of the U.S. food supply.

This purpose has been sought for many years, I am sorry to say, in many ways, and by a number of administrations and by numerous congressional directives. We have been less than successful in achieving institutional arrangements that have been effective. We have been less than effective in gathering the resources and the commitments necessary to even address this problem.

Congressional mandates began in the 1967 Partnership for Health Amendments which resulted in the Ten-State Nutrition Survey; 10 years later, the Food and Agriculture Act of 1977 mandated the development of a proposal for a comprehensive nutritional status monitoring system. This proposal led to the mandate for an implementation plan which was submitted by this administration to the Congress in 1981. That plan included a commitment to conduct the first coordinated Nationwide Food Consumption Survey and the National Health and Nutrition Examination Survey in 1987.

Now we find that the proposed 1987 survey has been placed substantially in jeopardy by the fiscal year 1985 budget request which would delay the study known as NHANES for 1 year or longer and, therefore, also postpone the first coordinated survey. This action was taken in spite of the January 1984 report of the President's Task Force on Food Assistance which recommended that the Federal Government take several steps designed to improve information on the nutritional status of our people.

The public and policymakers alike deserve and need data which will provide, at a minimum, a continuous picture of the nutritional status of our population. The need for an effective and definitive program is clear. The question is how well does this bill meet that goal and what changes are necessary to enable it to function in the best way?

You can't help but be struck by the fact that the difficulties in achieving these objectives are essentially the same as those that were recognized in 1970 and reported at that time by the Government task force on nutrition surveillance. The report outlined the problems of including a subpopulation at potential risk in a national sample design, of defining responsibility within Federal agencies, and the need to establish a forum for the interaction among related users and related studies. The obstacles remain the same, and we have to somehow break this Gordian knot of difficulties with science and technology on the one hand and priority and commitment of our administration on the other. Progress has been literally nonexistent.

Today, witnesses will testify about their specific needs and suggested solutions to these problems that remain so intractable. We want to salute those public witnesses who have coordinated their testimony and organized their views in making consensus statements which reflect the perspectives of their particular organizations. It makes the managing of a hearing record much more possible, and that is a very important contribution.

We look forward with more than curiosity to the testimony of Government witnesses from those agencies designated joint responsibility for nutrition monitoring in this bill. We have had representations in years past that indicated programs would be forthcoming and then essentially nothing happens. We regret the National Science Foundation, which is designated to administer the competitive grants program that would be enacted in this measure, has submitted their views in writing rather than in participating today. We underscore that that should not indicate any lack of resolve on their part or expectation of their role by this committee. I ask unanimous consent that the National Science Foundation response be made part of the hearing record along with the statements of other groups who have provided us with their perspectives on this proposed legislation. [See appendix.]

Mr. BROWN. Without objection, so ordered.

Mr. WALGREN. I thank the chairman for the time.

Mr. BROWN. Mrs. Schneider, do you have an opening statement to make at this point?

Mrs. SCHNEIDER. Mr. Chairman, I appreciate the opportunity to be here for later introduction of one of my constituents, but I am going to pass on an opening statement so that I might defer to the other members of the committee. Thank you.

Mr. BROWN. Mr. MacKay, do you have an opening statement?

Mr. MACKAY. Mr. Chairman, I wish to commend you for holding this hearing. I also wish to thank the numerous individuals who responded to our request to contribute their expertise and recommendations during the drafting of this bill.

The records of these two subcommittees and reports of many other groups, including the 1984 President's Task Force on Food Assistance, clearly identify the need to improve Federal efforts in nutrition monitoring. The Congress has expressed concern about the lack of an effective and comprehensive nutrition monitoring system for many years. These subcommittees, through 6 years of oversight, have given this administration and the previous administration more than adequate time to demonstrate the ability to achieve this public need without a legislative mandate beyond the planning stage.

Congress can no longer afford to be complacent about the nutrition monitoring priorities it sets for the public good. The time has come for a specific directive of action. H.R. 4684 was designed to provide a forum for shaping that direction and stimulating the Government-academic-industry partnership necessary to realize a dynamic national nutrition monitoring and related research program.

This bill is not a proposal or a blank check for increased spending. On the contrary, the bill proposes to make more effective use of current expenditures through a coordinated interagency budget based on identified and planned priorities. The outcomes envisioned are not prescriptions for treatment after the fact, but rather for nutrition and health data that are necessary to reduce the need for costly health care and increase the opportunities for less costly health promotion and disease prevention.

In addition, the bill calls for the authorization and appropriation of funds based on a specific line item request from each responsible agency consistent with the interagency plan, thus giving not only the Congress but also the public the very first chance to review and evaluate federal expenditures for assessing nutrition and health status.

H.R. 4684 is not perfect. We are here today to obtain further assistance in addressing the complex tasks of interagency coordination and priority setting, public and private participation and plan implementation. One approach to accomplishing these tasks is the designation of a lead agency. This concept was recommended by GAO in 1978 and again in 1981 to promote progress in nutrition monitoring.

The subcommittees' hearing last year demonstrated that the lead agency approach has not resulted in a central focus for human nutrition research. Thus, this bill substitutes a directorate for nutrition monitoring and related research for the lead agency concept while allowing the directorate flexibility to set the priorities, identify the expertise, fix responsibility, and define its own management system.

We continue to seek suggestions for a more streamlined approach to accomplish the objectives outlined in H.R. 4684. As in the case of other legislative proposals to stimulate timely action and facilitate congressional oversight, it is unlikely the administration will agree that a legislative mandate is necessary for progress, but certainly that position cannot be supported on the basis of the progress that has been realized since their optimistic projections were put forth during our hearing last year.

Congress has been patient for too long. We cannot fulfill our responsibility to the public without a congressional directive to achieve the purposes of H.R. 4684.

I look forward to the recommendations from other Members of Congress and from public and administration witnesses on the best approach for achieving this obvious public need. The proposal which has the potential to leverage current spending on nutrition monitoring and reduce future expenditures for health care deserves the attention of all sectors of society.

Thank you, Mr. Chairman.

Mr. **Brown**. Thank you, Mr. MacKay.

Now I would like to call on Congressman Panetta who chairs a subcommittee dealing with the problems of hunger and nutrition, and has probably considered this issue to a larger extent than any other Member of the Congress. Mr. Panetta?

Mr. **Panetta**. Thank you, Mr. Chairman.

I would like my statement to be made part of the record, if I could, and just summarize it.

Briefly, we met here almost a year ago for a joint hearing on nutrition research with the same two subcommittees. I remember at that time asking USDA representatives what was the current nutritional status of Americans. I learned that the best available information at that time dated back 7 years and failed to assess what the status of individual target groups was like in terms of their nutritional status.

Obviously, in a country that prides itself on the state of the art in science and technology, it seems ludicrous that we don't have better information regarding nutritional status of Americans in this country. For that reason, I think we have continued to try to focus on the need to highlight additional funding and coordination for nutrition research. This always seems to be an area of low priority when it comes to budget cuts. Because of budget pressures, because of its priority status, it always winds up the victim of the first target of cuts, and that is a shame.

The President's Task Force on Nutrition and Food Assistance found that one of the problems they continually ran up against was the lack of adequate information about the nutritional status of Americans. So, I am happy to join with Congressmen MacKay and Walgren and Brown in the legislation they have put together to develop this early warning system to detect nutritional problems. I am very supportive of it, and I think it is the kind of direction we have to go in.

There are three major components that I think it deals with that are key. It provides for a continuous survey to oversample low-income persons to try to ensure that we draw valid conclusions about their nutritional status. Incidentally, we have included some of these provisions in H.R. 5151 which is the Hunger Relief Act of 1984 which hopefully will be coming to the floor in the next couple of weeks. Second, it provides the technical assistance that needs to be offered to State and local agencies to ensure that their data collection is statistically valid. The third element in the bill that is before us, H.R. 4684, ensures public review and comment. All of those factors are essential; they are all necessary.

Beyond all of that is something you can't build into any legislation which is just a basic commitment to getting good nutrition information out to people and getting good nutrition information back to us so that we can determine what needs to be done. There is no legislation that can make that kind of commitment. Unfortunately, that is a commitment that the administration and the people involved in those areas have to have if ultimately we are to really get the kind of nutrition information we need.

Thank you.

[The opening statement of Mr. Panetta follows:]

OPENING STATEMENT OF CONGRESSMAN LEON PANETTA

Only a year ago before a joint hearing on nutrition research of these same two subcommittees, I asked USDA representatives what was the current nutritional status of Americans. I learned then that the best available information dated back seven years and failed to assess the status of individual target groups.

In a country that prides itself on state of the art science and technology, should we not expect better information than this? Should policy makers expect more timely, valid, and representative data on the nutritional status of our nation? I think yes.

Scientists and public officials have sought improvements in our monitoring system for several years. But the development and implementation of a well-coordinated system has often languished, a victim of budget pressures and low priority status in this Administration. Clearly it is time for Congress to mandate such a system and commit adequate resources.

Unable to quantify hunger, the President's Task Force on Food Assistance urged better coordination and improved methods for supplying the public timely data on the nutritional status of Americans. Yet, in the 1985 Budget, the President requested nearly a 10% ($4 million) decrease in funds for the National Center for Health Statistics which conducts the Health and Nutrition Examination Surveys (HANES). Such a reduction would further delay analysis and reporting of past survey findings and postpone commencement of the next HANES.

What is the wisdom of cutting funds from data gathering activities. Perhaps, as one pundit put it "if one cuts the data, one has no data on the cuts."

I join Congressmen MacKay, Walgren, and Brown in their pursuit of an early warning system to detect nutritional problems. I support H.R. 4684 that establishes a mechanism to coordinate and improve a national nutrition monitoring system.

In short, three major components appear critical to this monitoring system. First, in light of the large commitment of Federal dollars to food assistance programs, the proposed continuous survey should oversample low income persons to insure that statistially valid conclusions can be drawn about their nutritional status. Data collection should also include food and household expenditures. We included these elements in H.R. 5151, "the Hunger Relief Act of 1984", as a basis for identifying certain shifts in the resources and quality of diets of persons "at risk" and for making requisite modifications in food assistance programs.

Secondly, I agree that technical assistance should be offered to state and local agencies to ensure that their data collection is statistically valid and comparable to nationwide statistics. Local and state surveys can best identify the pockets of hunger undiscovered by a broader, nationwide survey.

A third critical element in H.R. 4684 ensures public review and comment. As a model, the four public witnesses at today's hearing represent groups essential to the process of formulating an effective, efficient system that will answer the important question--what is the current nutritional status of the American public. I look forward to their comments and recommendations.

Mr. **Brown**. Thank you, Mr. Panetta.

I would like to call our first panel of witnesses to the table: Ms. Howell, Ms. Parker, Dr. Alcantara, Dr. Heimendinger, and Dr. Nesheim.

I would like to point out, as Mr. Walgren mentioned, that although this is obviously a large and well qualified panel, it only begins to represent the number of groups in the nutrition research community that were interested in testifying. Many of the witnesses on the panel are representing coalitions of groups. I hope that each of them will make clear the nature of the hats that they are wearing as they speak so that we can get the full flavor of the wide diversity of interests in this field of human nutrition and the various groups that are being spoken for here.

I would like to ask Mrs. Schneider if she would like to present her constituent at this point.

Mrs. **Schneider**. Thank you, Mr. Chairman.

I would like to begin by commending the members of this committee for their leadership in addressing this issue and for having the insight and the foresight to choose an expert witness from my home State of Rhode Island. Dr. Jerianne Heimendinger has been the Director of Nutrition at the Rhode Island State Department of Health for the past year and a half after having received a doctorate in nutrition at Harvard University.

What makes her perhaps unique and one of the leaders in the Nation is that she has been instrumental in designing and implementing a nutrition hotline with a toll free number. In addition to that, she has established a pediatric surveillance system to monitor and to document Rhode Island's ability or inability to meet the nutritional needs of Rhode Island children.

She is currently working on a study of the prevalence of malnutrition in Rhode Island. The initiative that she has taken in beginning this study came as a result of a similar study that had been done in Massachusetts indicating some very startling statistics. In August 1983, we had our first statewide survey of private, nonprofit agencies, such as soup kitchens and various private pantries. It was really dramatic to see that there had been a 50-percent increase in the number of people having been served last year.

A national survey conducted in 1982 by the Centers for Disease Control indicated that 8.5 percent of the sample of children aged 6 and under were stunted due to malnutrition and 7 percent were anemic. If you apply these rates to the population of low-income children straight across-the-board nationwide, it comes to approximately 500,000 American children under the age of 6 who live near or at the level of poverty who may be suffering from malnutrition.

So, needless to say, we are well aware of the problem, and I am delighted that Dr. Heimendinger is here to share with us some of the solutions and the directions that ought to be taken and to lend her expertise on some of the economics of nutrition monitoring.

Thank you, Mr. Chairman.

Mr. **Brown**. The rest of the panelists don't get an introduction like that unless they have a member on the committee, so I am going to ask each of you to proceed in the order in which you are listed which just makes it easier for me to keep track of you.

Dr. Nesheim, would you like to begin?

STATEMENT OF DR. MALDEN C. NESHEIM, DIRECTOR, DIVISION OF NUTRITIONAL SCIENCES, CORNELL UNIVERSITY

Dr. NESHEIM. Thank you very much, Mr. Chairman.

I am very pleased to be here today. I am professor of nutrition and Director of the division of Nutritional Sciences at Cornell University and I am President-elect of the American Institute of Nutrition. Although my testimony represents my own views, my appearance here today has been endorsed by the Joint Public Affairs Committee of the American Institute of Nutrition and the American Society of Clinical Nutrition; by the National Nutrition Consortium which represents the American Institute of Nutrition, the Institute for Food Technologists, and the Society for Nutrition Education; by the Subcommittee of Human Nutrition of the Experiment Station Committee on Policy of the Land Grant Colleges; and by the American Dietetic Association.

I have a statement that I have prepared which I have submitted, and I will not give the complete statement, but I would like to summarize the points that I would like to make.

Mr. BROWN. Without objection, the full statement will appear in the record, and we will trust that you can successfully wear all these hats at the same time.

Dr. NESHEIM. All of these professional groups that I have indicated have asked me to be here on their behalf today have asked me to express support for the timely establishment of a coordinated national nutrition monitoring program, such as is described in the bill we are considering today. We need such a system as a basic component of any coordinated food and nutrition policy developed for the United States.

We believe that without timely information as to food consumption patterns, trends, health and nutrition status of our people and specific information on high risk groups in the population, we can't really expect to develop national responsive and effective programs that ensure the basic needs are met in a country that has the most impressive ability to produce food of any nation in this world.

We have supported the findings in the bill that the information that we are gathering has a large variety of uses. This is not a bill that is supporting an information gathering system per se. The reason we need the information is for a whole variety of purposes. I think the number of people on this panel that will be testifying will give witness to the various uses which people have for the information that is collected in the nutrition monitoring systems that we are talking about.

We find that an adequate and timely system that monitors food consumption patterns, health indicators in defined population groups can provide data for development of food and nutrition policy, for agricultural policy, for health planning. Data collected should provide information about the adequacy of the overall impact produced by our social, health, and nutrition policies and programs, even though I think that one realizes that a nutrition monitoring system will not replace the need for specific evaluations of some of these programs.

Data from a comprehensive monitoring system that provides information as to food consumption trends, nutrient intake, and health indicators are particularly valuable for nutrition education programs. My department at Cornell is responsible for nutrition education programs through cooperative extension programs in New York State. Basic information about what people are doing, what people are eating, what are the nutrition problems that are out there, is absolutely essential for really designing effective nutrition education programs. That is an example of a use at a State level that I think is extremely important.

The current data that are generated by the Nationwide Food Consumption Survey and HANES, for example, represent key information that we need for epidemiological research. The potential relationships between dietary practices and chronic disease have to be investigated within the context of long term data on dietary practices and associated with health data. Although we have in place the current elements of a nutrition monitoring system that provides much of the data base available in this country for epidemiological studies, as you have indicated earlier, much of this is not available on a sufficiently timely basis.

A key feature of a nutrition monitoring system has to be its regular and systematic data collection and its timely analysis and interpretation so that appropriate actions can be taken by the system's users, whether it be government departments, Congress, private industry, or academic institutions. Such a system need not require development of a new and expensive data system or a major new Federal bureaucracy. We have a good share of the survey design and the surveys in place that are needed to develop a national nutrition monitoring system. At the moment, this system is languishing because we don't have adequate funding or insufficient attention is brought to bear on actually making such a system work.

Another point that all of these groups that I am testifying for asked me to make is that such a coordinated nutrition monitoring program must be a Federal responsibility. Our food, nutrition, production, and marketing system is national. It is not based on local or regional food supplies. Federal intervention programs related to nutrition are and must continue to be national programs because of the high mobility of our population. All of these factors indicate that we have a need for national data.

At the same time, we have to recognize that many States are developing a concern for monitoring the nutritional well bring of their citizens. I might add that in addition to Rhode Island, New York State has been undertaking activities in regard to developing its own nutrition monitoring system. In conjunction with the Health Department in New York, we will be working in developing a New York State nutrition monitoring system. However, these State efforts can only be complimentary to a national nutrition monitoring program which is described in this bill, because they can provide data suited to local and regional initiatives which can't be produced by national surveys. Certainly, I think State efforts in this regard should be encouraged and integrated into a national system.

Presently, the need for a comprehensive nutrition monitoring system is not being met even though many of the elements of the system exist. Even for those two surveys which are key to the National Nutrition Monitoring System, which is the USDA Food Consumption Survey and the HANES surveys, the data are not made available on a timely basis. The results are not integrated because of the present survey designs. Much data that was collected in 1977 and 1979, for example, in the second HANES survey, have only become available in the past year and some of it still hasn't become available for analysis and interpretation.

The original plans for a comprehensive nutrition monitoring system were first proposed in 1978 and developed in more detail in 1981 by the USDA and the DHHS. In spite of more than 6 years since the inception of this idea, there is little progress in evidence and, in fact, the first steps in the integration of HANES and the Nationwide Food Consumption Survey have been delayed. The Joint Nutrition Monitoring and Evaluation Committee met only for the first time last November, 2 years after it was authorized. The agencies which are supposed to support this program have no new resources to support the activities of this committee.

I would also like to point out that although the Food Consumption Survey and the HANES survey are the centerpieces of the National Nutrition Monitoring System that has been proposed, there are a number of other surveys and activities carried out by the various departments which are important for providing data for a particular monitoring system. These include the actual food disappearance data that are collected by the USDA, the food composition program of the USDA, and important surveys of the Food and Drug Administration, such as their Total Diet Study, and some additional surveys which are going on which I have also listed in my testimony. All of these are gathering pieces of information that if integrated in a timely fashion and in a useful way could provide an important picture of our nutritional status and food practices in this country.

Presently, we would like to support provisions of the bill that provide specific funding for the agencies that are involved in this nutrition monitoring system on a long term basis. In most cases, the agencies that have been involved have not had sufficient resources to ensure timely analysis and release of the national survey data. These resources should be provided so that the research and academic community of the United States can also play its complimentary role in the analysis and interpretation of the national survey results. I think that is a resource that hasn't been used to the extent that it could have.

I also want to support provisions of the bill which call for appropriation of research funds to the National Science Foundation to support research into appropriate indicators, standards, methodologies, technologies, and procedures for nutrition surveillance and monitoring. There are several types of research that are needed for a functioning nutrition monitoring system in the United States. We hope that NSF will have a clear understanding of the nature of the research that needs to be done as they administer this competitive grants program in this area.

We think that a lot of the research data that is needed will be better defined once we have a design for a national system so we can define the research that is needed to go into developing this national system. Some of the research that is needed is actually a kind of operational research in nature which will take these data and put it into a useful form that can be used for the purposes that we have all listed for the national monitoring system. So, certainly, we support the competitive grants program and we feel that it should be a part of this particular legislation.

The bill also outlines what seems to be a complex Federal organizational structure for nutrition monitoring. I am not really prepared to comment on an ideal organizational structure to support this monitoring system, but it is clear from present experience with the Joint Nutrition Monitoring and Evaluation Committee that staff support is needed for overall coordination and management of the nutrition monitoring effort. Since this support is contained in the proposed legislation, I think this will be helpful in the operation of a nutrition monitoring system in the country.

Mr. Chairman, I want to emphasize the broad support for implementing a national nutrition monitoring system that exists within the professional and academic nutrition community in this country. We feel the system is needed, that the data has to be available on a timely basis, and that such a system is rightfully a responsibility of the Federal Government. You may be assured that the nutrition professionals in this country are prepared to play their part in assisting Federal agencies with this program once a real commitment is made to move ahead.

I want to thank you again, Mr. Chairman, for the opportunity to present our views in this regard.

[The prepared statement of Dr. Nesheim follows:]

TESTIMONY OF MALDEN C. NESHEIM, DIVISION OF NUTRITIONAL SCIENCES, CORNELL UNIVERSITY

I am grateful for the opportunity to testify at these hearings on Human Nutrition Research and Monitoring. I am Professor of Nutrition and Director of the Division of Nutritional Sciences at Cornell University and President-elect of the American Institute of Nutrition. My testimony today represents my own views but my appearance here has been endorsed by the Joint Public Affairs Committee of the American Institute of Nutrition and the American Society for Clinical Nutrition, by the National Nutrition Consortium representing the American Institute for Nutrition, the Institute for Food Technologists and the Society for Nutrition Education, by the Subcommittee on Human Nutrition of the Experiment Station Committee on Policy of the Land Grant Colleges and by the American Dietetics Association. All of these professional groups representing the bulk of the nutrition professionals in the United States have asked me to express support for the timely establishment of a coordinated national nutrition monitoring program as is provided for in H.R. 4584. We need such a system as a basic component of any coordinated food and nutrition policy developed for the United States.

Without timely data as to food consumption patterns and trends, health and nutrition status of our people and specific information on high risk groups in the population, we cannot expect to develop rational, responsive, and effective programs to insure that basic needs are met in a country with the most impressive ability to produce food of any nation in the world.

I wish to support the findings contained in the bill that the information derived from a national nutrition monitoring system has a wide variety of uses in government, private industry, and in academic research. An adequate and timely system that systematically monitors food consumption patterns and health indicators in defined population groups can provide data for food and nutrition policy development, for agricultural policy, and for health planning. Data collected should provide important information about the adequacy of the overall impact produced by our social, health and nutritional policies and programs, though a monitoring system will not replace the need for specific evaluations of the programs.

Data from a comprehensive nutrition monitoring system that provides information as to food consumption trends and nutrient intake and health indicators are extremely valuable for nutrition education programs, appropriately targeted to current food practices and public health needs. Such data also are used by the entire food system, from agriculture, the food industry and federal regulatory agencies.

The current data generated by the NFCS and HANES represent key information needed for epidemiologic research. The potential relationships between dietary practices and chronic disease must be investigated in the context of long term data on dietary practices, associated with health data. The current elements of the nutrition monitoring system already provide much of the data base available in the United States for epidemiological studies. Although the nutrition monitoring system is aimed primarily at food consumption and nutritional status assessment, such nutritional data are also useful indicators of the social well-being of populations in a broader context.

A key feature of such a monitoring system must be its regular and systematic data collection and its timely analysis and interpretation so that appropriate actions can be taken by the system's users, whether it be government departments, the congress, private industry or academic institutions. Such a system need not require development of new and expensive data collection systems or major new federal bureaucracy. What is needed is the coordination, timely implementation and adequate interpretation of elements of a system largely in place but at the moment languishing because of inadequate funding and attention.

Such a coordinated nutrition monitoring program must be a federal responsibility. Our food production and marketing system is national, not based on local or regional food supplies. Federal intervention programs related to nutrition are and must continue to be national because our population is highly mobile. All these factors indicate that we have a need for national data. At the same time we must recognize that many states are developing a concern for monitoring the nutritional well being of their citizens. My own state of New York is taking strong leadership in developing a system to monitor nutritional problems within the state. These state efforts are complementary to the national nutrition monitoring program described in H.R. 4684 because they provide data suited to local and regional intiatives which cannot be provided by national surveys. Certainly, state efforts in this area should be encouraged and integrated into the national system.

Presently the need for a comprehensive nutrition monitoring system is not being met even though many of the elements of the system exist. Even for those two surveys which are key to the National Nutrition Monitoring System, the USDA Food Consumption Survey, and the Health and Nutrition Examination Surveys of the DHHS the data are not made available on a timely fashion and the results cannot be integrated due to present survey design. Much data collected in 1977-79 in HANES II have only become available in the past year and in some instances some components of the data gathered in this survey have still not been released.

The original plans for a comprehensive nutrition monitoring system were first proposed in 1978 and developed in more detail in 1981 by the USDA and DHHS. In spite of the more than six years since the inception of the idea, there is little progress in evidence and, in fact, plans for the first steps forward in a coordinated and timely fashion.

I also wish to support provisions of H.R. 4684 which call for the appropriation of research funds to the National Science Foundation to support research into appropriate indicators, standards, methodologies, technologies and procedures for nutrition monitoring and surveillance.

There are several types of research needed for a functioning nutrition monitoring system in the United States. We hope that NSF in administering these research funds will develop a clear understanding as to the nature of the research needed to provide the underpinnings to the nutrition monitoring system. The data presently available for monitoring are not currently being used well. There will be specific recommendations made to federal agencies by the National Academy of Sciences and by the present Joint Nutrition Monitoring and Evaluation Committee for improving the utilization of existing data. There is, however, a need for operational research to improve the use of nutritional monitoring data in setting policy and program planning. This research can best be carried out in the context of specific nutrition monitoring programs in which it is clear for what purpose data are to be used. This research is needed along with that aimed at improvement of survey design, sampling, appropriate indicators, and measurements useful for targeting.

The bill HR 4684 outlines what seems to be a complex federal organizational structure for nutrition monitoring. Though I am not prepared to comment on an ideal organizational structure to support the monitoring program, it is clear from present experience with the Joint Nutrition Monitoring and Evaluation Committee that staff support is needed for the overall coordination and management of the nutrition monitoring effort. Such support is also contained in the proposed legislation and this should be helpful to the operation of a nutrition monitoring system in this country.

Mr. Chairman, I wish to emphasize the broad support for implementing in integration of HANES and NFCS have been delayed. For instance, the Joint Nutrition Monitoring and Evaluation Committee met for the first time last November, two years after it was authorized and the agencies which are supposed to support it have no new resources to do so.

Although the centerpieces of the National Nutrition Monitoring System are the USDA Food Consumption Survey, and the Health and Nutrition Examination Surveys of HHS, several other activities carried out by these and other departments are also essential components of the national system. The food disappearance data compiled by the USDA, along with the department's continued efforts at improving available food composition data are essential features along with other important surveys not presently even considered within the National Nutrition Monitoring System such as efforts of the Center for Disease Control, important ongoing programs of the FDA, including the Total Diet Study, the Consumer Expenditure Survey (CES), and the Survey on Income and Program Participation (SIPP). All these surveys are important to the successful development of a nutrition monitoring system and should be incorporated into that system.

Presently the data obtained from these various sources are not integrated to provide the timely and comprehensive view of food practices, trends and health implications that could be constructed from the comprehensive data collected by the surveys cited. This should be a major function of a national nutrition monitoring system. In most instances, agencies have not had sufficient resources to insure timely analysis and release of national survey data. These resources should also be provided so that the research and academic community in the United States could play its complementary role in analysis and interpretation of national survey results. The provisions of H.R. 4684 call for specific funding of the program by the agencies involved on a long term basis. Only in this manner can planning and preparation for surveys and data analysis be carried a national nutrition monitoring system that exists within the professional and academic nutrition community in this country. We feel the system is needed, that the data must be available on a timely basis, and that such a system is rightfully a responsibility of the federal government. You may be assured that the nutrition professionals in this country are prepared to play their part in assisting federal agencies with this program once a real commitment is made to move ahead. I wish to thank you for the opportunity to present our views on this important subject.

Brief Biographical Sketch

M. C. Nesheim

Dr. M. C. Nesheim is Professor of Nutrition and Director of the Division of Nutritional Sciences at Cornell University, Ithaca, N.Y. He holds a B.S. and M.S. degrees from the University of Illinois, and a Ph.D. degree in nutrition and biochemistry from Cornell University. He has been engaged in research and teaching in nutrition as a faculty member at Cornell since 1959. He has published more than 100 papers in scientific journals. Dr. Nesheim is president-elect of the American Institute of Nutrition, Chairman of the Nutrition Study Section of the National Institutes of Health, and serves on the Food and Nutrition Board, National Research Council, National Academy of Sciences. He is also a member of the Board of Human Nutrition Councillors of the U.S. Department of Agriculture.

Mr. **Brown**. Thank you very much, Dr. Nesheim. That is a very helpful statement.

Dr. Heimendinger? We will hear all the panelists before asking questions.

STATEMENT OF DR. JERIANNE HEIMENDINGER, DIRECTOR OF NUTRITION SERVICES, RHODE ISLAND DEPARTMENT OF HEALTH

Dr. **Heimendinger**. Mr. Chairman, members of the subcommittee, Congresswoman Schneider, and associates, thank you for the opportunity to speak to you today, not only as a member of the Association of State and Territorial Public Health Nutrition Directors, but on behalf of a coalition of colleagues in government, health, and social service organizations. We share a common concern for nutrition status monitoring, related research, and the practical uses to which these data and methods are put.

I won't read to you the whole list of organizations whom I am representing this morning, but I would like to make an addendum to the record as presented which is to add the Service Employees International Union and to delete the American College of Obstetricians and Gynecologists. Otherwise, I am representing 17 organizations in this coalition this morning.

This testimony reflects the thoughts and efforts of many people and the leadership of Susan Foerster, nutrition consultant for the California Department of Health Services. It is my pleasure to be the spokesperson for our comments.

In recent years, expanding scientific knowledge about the relationship of dietary constituents to chronic disease, aging, and even mental health has added impetus to the earlier attention paid to monitoring problems of undernutrition. There is a steadily increasing interest in improving specific dietary practices related to prevalent health problems among virtually all population segments: Pregnant women, growing infants and children, adolescents, adults in the middle years, older adults, and ethnic or low income subgroups. Increasingly, correction of nutrient deficiencies seen most often and most severely among the poor is viewed as but the first step toward the goal of an optimal diet which not only prevents or delays onset of major chronic diseases but also supports optimal physical and mental performance.

Setting priorities for nutrition programming, research, and epidemiologic studies has for many years been the domain of the Federal Government. To this task they have applied strong leadership and scientific integrity. The success of this strategy is self-evident, but the 1980's are a time of transition in which three major trends have occurred.

First, there has been a shift away from establishing priorities nationallly toward giving flexibility and responsibility to the States who, in turn, may pass this on to localities or call upon the private sector to help.

Second, there has been a slowing of growth in health and food assistance programs and increased emphasis on fiscal accountability and effectiveness evaluation.

Third, we have experienced increased demands for public services, stiffer competiton for available resources, and redirection of existing moneys rather than allocation of new moneys to meet new priorities.

These trends have exponentially increased the need of non-Federal agencies and organizations for current and accurate data upon which to make rational decisions about health, nutrition, and food programs which they operate or wish to initiate. They have an acute need, therefore, for data relevant to their own jurisdictions which answer such key questions as: Which subpopulations and geographic areas are at greatest risk for poor health status? What interventions are being offered to address those health risks? Are the populations at risk receiving the interventions they require? Are the interventions effective in improving the health status of the target populations?

Lacking the funds to finance their own surveys, more and more agencies study Federal research reports such as the Health and Nutrition Examination Survey or the Food Consumption Survey for answers. But the answers to many very practical questions elude most users.

For example, Federal suvery findings are not interpreted and reported relative to the most commonly used standards such as the U.S. Recommended Dietary Allowances or the Dietary Guidelines for Americans. To do these interpretations properly requires intimate understanding of both the field of nutrition and the statistical design of the studies which many users lack. Attempts by individual users to translate Federal survey findings into more useful tools often results in a multiplicity of misinterpretations. Furthermore, the different survey and analysis methods employed by the Health and Human Services Department and the U.S. Department of Agriculture do not allow the user to compare the findings of HANES I, done in 1971 through 1974, with the Nationwide Food Consumption Survey, 1977–78, or with HANES II, 1976–80. Without this compatability, how do we know if we are making progress?

The data tapes can be used to create synthetic estimates for subnational jurisdictions, but variables such as age, income, and ethnicity needed for program targeting are inadequate. In many cases, the data themselves are outdated and therefore not reflective of the major secular trends that have occurred in the interim. Finally, statistical and computer resources needed to develop customized reports are often not available in States and localities at all.

Certain data are not collected. These include statistics linking persons with problems with the services they receive and subsequent change in the problem status. This information is vital if States and localities are to make rational decisions about the allocation of resources.

There is little practically oriented epidemiological research to develop shorter and cheaper methods of monitoring nutritional status, food consumption, nutrition knowledge, and food scarcity suitable for use by States, localities, and others needing such methods. Hunger monitoring is a specific example. Methods are needed to determine the magnitude and severity of the problem, but at least 15 States are struggling independently with the problem at this point in time. Other areas in which better monitoring methods are desperately wanting are anemia, obesity, serum cholesterol, and dietary intake itself.

H.R. 4684 comes at a time of acute need. We believe that, with the changes suggested below, H.R. 4684 could result in a stronger and more participatory relationship of State and local entities with the Federal Government that allows each of us to do his own job better and thereby better meet the country's nutritional needs.

Turning to the language of H.R. 4684, our perspective on its provisions, and our recommendations for change, follow in the order of the legislation.

I may summarize some of this as I go along, but I would like to make some of these comments if I may.

Mr. **Brown**. The full text will appear in the record.

Dr. **Heimendinger**. OK.

In section 101, which is the coordinated program and the directorate, we believe the 10-year plan as developed and implemented by the multiagency directorate will be a vehicle through which to address the needs outlined above. Such a directorate would create a focal point for planning surveys, setting research priorities, and drafting reports that are accessible and responsive to parties outside the Federal Government.

The involvement of the Secretary of Defense as a chairperson is quite appropriate because of his department's expertise in determining the nutritional status of troops, the nutritional impact of stress, and the nutritional well-being of American allies. We also believe that inclusion of advisory council members on the directorate strengthens communications with the non-Federal sector and will hasten progress toward meeting common objectives.

The only change we recommend here is removal of the requirement that the members designated from the advisory council be the chairperson and the vice chairperson. We think it is preferable that these liaison members be selected by the advisory council itself.

In section 102, functions of the directorate, we would like to emphasize the provision of technical assistance, training, and consultation to States and localities by including specific language to that effect.

With regard to (a)(4), the National Science Foundation competitive grants program, we would like to assure the utility of this research to State and local users by including language that the competitive grants process would require applicants to involve States and localities in the grant application and subsequent implementation.

With regard to the entirety of that section 102, we feel it is imperative to add another program of competitive grants for States and localities complementary to the research program grants to be awarded to universities through the National Science Foundation. This program would encourage and assist States and localities in the conduct of monitoring and surveillance of nutritional status, food consumption, nutrition knowledge, service characteristics, and utilization by specific populations or by the population as a whole. It would include surveillance of problems of low income people pertaining to access to food, participation in assistance programs, and information about periods when resources are inadequate to provide sufficient amounts of food. We suggest the program be administered through the U.S. Centers for Disease Control.

I am going to skip down to some of the other recommendations which I am going to address here, which are in section 107, authorization of appropriations. With regard to the funding level of the Centers for Disease Control competitive grants program, we suggest an appropriation of $1 million annually, for each of 9 succeeding years, to remain available until expended.

In section 201, establishment of the council, with regard to the total council membership, we recommend a third category be added, namely, for three nonvoting members appointed from the directorate, with one each designated by the Secretary of Agriculture, the Secretary of Defense, and the Secretary of Health and Human Services, for terms not to exceed 5 years. Their presence as nonvoting members would facilitate communications between the council and the directorate without modifying the independent nature of the council.

With regard to officers of the advisory council, we recommend that the council should designate one member as its chairperson and one as its vice chairperson for a term not to exceed 5 years. We believe that such self-governance, once again, promotes positive working relationships and thereby increases productivity.

This concludes our remarks. We look forward to working with Congress and the administration to better meet the challenges of improving nutritional health through efficient and sensitive administration of public and private services.

Thank you.

[The prepared statement of Dr. Heimendinger follows:]

NATIONAL NUTRITION MONITORING AND RELATED RESEARCH ACT OF 1984, HR 4684

HEARINGS BEFORE
THE SUBCOMMITTEE ON SCIENCE, RESEARCH, AND TECHNOLOGY
THE SUBCOMMITTEE ON DEPARTMENT OPERATIONS, RESEARCH, AND FOREIGN AGRICULTURE

COALITION MEMBERS

American Association of University Women

American College of Preventive Medicine
American Nurses Association
American Public Health Association
Association of Faculties of Graduate Programs in Public Health Nutrition
Association of Schools of Public Health
Association of State and Territorial Health Officials
Association of State and Territorial Public Health Nutrition Directors
Coalition for Public Health Nutrition
National Association of Counties
National League for Nursing
National Perinatal Association
Southern Health Association
Teachers of Preventive Medicine
University of North Carolina Child Health Outcomes Project
U.S. Conference of Local Health Officers
Service Employees International Union

Washington, D.C. - June 20, 1984

Testimony Presented by

Jerianne Heimendinger, Ph.D.
Association of State and Territorial
Public Health Nutrition Directors

TESTIMONY OF DR. JERIANNE HEIMENDINGER
REPRESENTING A COALITION SUPPORTING HR 4684
WASHINGTON, DC -- JUNE 20, 1984

Mr. MacKay, Mr. Brown, Mr. Walgren, Members of the Subcommittees, and Associates:

Thank you for the opportunity to speak to you today, not only as a member of the Association of State and Territorial Public Health Nutrition Directors, but on behalf of a coalition of colleagues in government, health, and social service organizations. We share a common concern for nutrition status monitoring, related research and the practical uses to which these data and methods are put. This testimony reflects the thoughts and efforts of many people and the leadership of Susan Foerster, Nutrition Counsultant for the California Department of Health Services. It is my pleasure to be the spokesperson for our comments.

In recent years expanding scientific knowledge about the relationship of dietary constituents to chronic disease, aging and even mental health has added impetus to the earlier attention paid to monitoring problems of undernutrition. There is a steadily increasing interest in improving specific dietary practices related to prevalent health problems among virtually all population segments--pregnant women, growing infants and children, adolescents, adults in the middle years, older adults, and ethnic or low income subgroups. Increasingly, correction of nutrient deficiencies seen most often and most severely among the poor is viewed as but the first step toward the goal of an optimal diet which not only prevents or delays onset of major chronic diseases but also supports optimal physical and mental performance.

Setting priorities for nutrition programming, research and epidemiologic studies has for many years been the domain of the

Federal Government. To this task they have applied strong leadership and scientific integrity. The success of this strategy is self-evident. But the 1980's are a time of transition in which three major trends have occurred.

First, there has been a shift away from establishing priorities nationally toward giving flexibility and responsibility to the states who, in turn, may pass this on to localities or call upon the private sector to help.

Second, there has been a slowing of growth in health and food assistance programs and increased emphasis on fiscal accountability and effectiveness evaluation.

Third, we have experienced increased demands for public services, stiffer competition for available resources, and re-direction of existing monies rather than allocation of new monies to meet new priorities.

These trends have exponentially increased the need of non-federal agencies and organizations for current and accurate data upon which to make rational decisions about health, nutrition, and food programs which they operate or wish to initiate. They have an acute need, therefore, for data relevant to their own jurisdictions which answer such key questions as:

1. Which subpopulations and geographic areas are at greatest risk for poor health status?
2. What interventions are being offered to address those health risks?

3. Are the populations at risk receiving the interventions they require?
4. Are the interventions effective in improving the health status of the target populations?(1)

Lacking the funds to finance their own surveys, more and more agencies study federal research reports such as the Health and Nutrition Examination survey or the Food Consumption Survey for answers. But the answers to many very practical questions elude most users.

For example, federal survey findings are not interpreted and reported relative to the most commonly utilized standards such as the U.S. Recommended Dietary Allowances or the Dietary Guidelines for Americans. To do these interpretations properly requires intimate understanding of both nutrition and the statistical design of the studies, which many users lack. Attempts by individual users to translate federal survey findings into more useful tools often results in a multiplicity of misinterpretations. Furthermore, the different survey and analysis methods employed by HHS and USDA do not allow the user to compare findings of Hanes I (1971-74) with NFCS (1977-78) or with Hanes II (1976-80). Without this comparability, how do we know if we are making progress?

The data tapes can be used to create synthetic estimates for sub-national jurisdictions, but variables such as age, income, and ethnicity needed for program targeting are inadequate. In many cases the data themselves are outdated and therefore not reflective of the major secular trends that have occurred in the interim. Finally, statistical and computer resources needed to develop customized reports are often not available in states and localities at all.

Certain data are not collected. These include statistics linking persons with problems with the services they receive and subsequent change in problem status. This information is vital if states and localities are to make rational decisions about the allocation of resources.

There is little practically-oriented epidemiologic research to develop shorter and cheaper methods of monitoring nutritional status, food consumption, nutrition knowledge, and food scarcity suitable for use by states, localities, and others needing such methods. Hunger monitoring is a specific example. Methods are needed to determine the magnitude and severity of the problem, but at least 15 states are struggling independently with the problem. Other areas in which better monitoring methods are desperately wanting are anemia, obesity, serum cholesterol, and dietary intake itself.

HR 4684 comes at a time of acute need. We believe that, with the changes suggested below, HR 4684 could result in a stronger and more participatory relationship of state and local entities with the federal government that allows each of us to do his own job better and thereby better meet the country's nutritional needs.

Turning to the language of HR 4684, our perspective on its provisions and our recommendations for change follow in order of the legislation:

Section 101. The coordinated Program and the Directorate. We believe that a ten-year plan as developed and implemented by the multi-agency directorate will be a vehicle through which to address the needs outlined above. Such a directorate would create a focal point for planning surveys, setting research priorities, and drafting reports that is accessible and responsive to parties outside the federal government.

The involvement of the Secretary of Defense as a chairperson is quite appropriate because of his Department's expertise in determining the nutritional status of troops, the nutritional impact of stress, and the nutritional wellbeing of American allies. We also believe that inclusion of advisory council members on the directorate strengthens communications with the non-federal sector and will hasten progress toward meeting common objectives.

The only change we suggest is removal of the requirement that the members designated from the advisory council be the chairperson and vice chairperson. We think it preferable that these liaison members be selected by the advisory council itself.

Section 102. Functions of the Directorate. With regard to (a) (1), goals of the coordinated program, we would like to emphasize the provision of technical assistance, training and consultation to states and localities by including specific language to this effect.

With regard to (a)(4), the National Science Foundation competitive grants program, we would like to assure the utility of this research to state and local users by including language that the competitive grants process would require applicants to involve states and localities in the grant application and subsequent implementation.

With regard to the entirety of Section 102, we feel it is imperative to add another program of competitive grants for states and localities complementary to the research program grants to be awarded to universities through the National Science Foundation. This program would encourage and assist states and localities in the conduct of monitoring and surveillance of nutritional status, food consumption, nutrition knowledge, service characteristics and utilization by special populations or by the population as a whole. It would include surveillance of problems of low income people pertaining to access to food, participation in assistance programs, and information about periods when resources are inadequate to provide sufficient amounts of food. We suggest the program be administered through the U.S. Centers for Disease Control.

Section 103. Development of the Comprehensive Plan. With regard to the comprehensive plan (b) (1), the design of future surveys should permit statistically reliable estimates not only of high risk groups but also of subnational geopolitcal areas (page 11, line 10); (5) improve methods and technologies, including those suitable for use by states and localities (page

12, line 7); and (11) focus on national and state nutrition monitoring needs (page 13, line 6).

Section 106. Executive Director and Staff.
With regard to the appointment of staff (c), the use of persons with qualifications such as those outlined in section 201 (b) of this act should assure familiarity with the subject matter and greatly ease the work of both the directorate and the advisory council (page 17, line 6).

Section 107. Authorization of Appropriations.
With regard to the funding level of the Centers for Disease Control competitive grants program, we suggest an appropriation of $1,000,000 annually, for each of nine succeeding years, to remain available until expended.

Title II. National Nutrition Monitoring Council
The establishment of an independent, knowledgeable and comprehensive outside advisory body will constitute a vital link between federal research and survey personnel and outside users. This body can assist the directorate in setting priorities for survey and methodological research; developing consensus as to uniform data elements for use in non-federal settings; consulting on data reports and interpretations needed by outside users; and otherwise expenditing the transfusion of new scientific knowledge into practice.

Section 201. Establishment of the Council.
With regard to the total council membership (a) (2), we recommend

a third category be added, namely for three non-voting members appointed from the directorate, with one each designated by the Secretary of Agriculture, the Secretary of Defense, and the Secretary of Health and Human Services, for terms not to exceed five years. Their presence as non-voting members would facilitate communications between the council and the directorate without modifying the independent nature of the council.

With regard to persons appointed to the council by the President (c) (1), we propose that only directors or employees of nutrition research units instead of federal employees be considered in this category.

With regard to representation on the council (d), we recommend consideration of farming or agricultural interests.

With regard to officers of the advisory council (e), we recommend that the council should designate one member as its chairperson and one as its vice-chairperson for a term not to exceed five years. We believe that such self-governance promotes positive working relationships and thereby increases productivity.

This concludes our remarks, unless there are questions about these recommendations. We look forward to working with Congress and the Administration to better meet the challenges of improving nutritional health through efficient and sensitive administration of public and private services. Thank you.

REFERENCE

(1) Peoples, M.D. and C.A. Miller. "Monitoring and Assessment in Maternal and Child Health: Recommendations for Action at the State Level." Paper presented at the conference, State Action to Improve Child Health, Washington, D.C., May 5-7, 1982.

BIOGRAPHICAL SKETCH
JERIANNE HEIMENDINGER

Dr. Heimendinger is the Director, Office of Nutrition Services of the Rhode Island Department of Health. In this capacity she has developed and implemented a Nutrition Hotline service which gives citizens free access to professional nutrition advice. She has also expanded the CDC pediatric surveillance system to include all WIC sites in the state, developed nutrition standards for pediatric preventive services and performed surveys on the prevalence of breastfeeding and malnutrition in Rhode Island.

She received her doctorate in nutrition from the Harvard School of Public Health and her Master's in Public Health from Tulane University. She has had management, teaching and research experience in public health at the local, state, national, and international levels.

Mr. Brown. Thank you very much.

Dr. Alcantara, you are next.

STATEMENT OF DR. EMERITA N. ALCANTARA, ASSISTANT DIRECTOR OF NUTRITION RESEARCH, NATIONAL DAIRY COUNCIL

Dr. Alcantara. Thank you.

Mr. Chairman and members of the subcommittees, on behalf of the National Dairy Council, I wish to thank you for inviting us to testify at this hearing and present our views on the National Nutrition Monitoring and Related Research Act of 1984, H.R. 4684.

I would like to submit our prepared statement for inclusion in the hearing record.

Mr. Brown. Without objection, it will be made a part of the record.

Dr. Alcantara. And summarize, in the next few minutes, the highlights of our prepared statement.

Since I am here before you representing an organization that uses data from the Government nutrition surveys, I would like to present the summary in the following manner: First, I would like to give a brief description of the organization which I am representing, which is the National Dairy Council, or NDC, and give examples of how we use data from the Nationwide Food Consumption Survey, or NFCS, and the National Health and Nutrition Examination Survey, or NHANES, and then follow that up by describing what we consider as important or desirable features in a nutrition monitoring system so that that system would meet information needs of users of the data, and then relate those features to H.R. 4684.

The National Dairy Council was established in 1915. It is a nonprofit, educational, scientific organization whose mission is to contribute to optimal health through nutrition research and nutrition education. Dairy council is both a national organization and a local program, with a national office directing the national programs and approximately 300 professional staff members bringing these programs to their respective areas across the United States.

I will focus on certain provisions of the National Nutrition Monitoring and Related Research Act of 1984 as they relate to our usage of the data from the NFCS and the NHANES. In developing our various programs, we draw from the data bases generated by these two surveys. These data help form the basis for our nationwide efforts to inform the American public about wise food choices and the importance of adequate nutrient intake.

The National Dairy Council publishes a wide spectrum of nutrition education materials for a variety of audiences, such as health professionals, elementary and secondary schoolteachers, and consumers of all ages. In 1983, National Dairy Council and its network of affiliated dairy council units placed over 9 million pieces of educational materials across the country.

In addition to utilizing the various Government survey data in our educational materials and programs, we also use these data in providing direction to our nutrition research grant-in-aid program. For example, both the NFCS and the NHANES data have shown that many Americans, especially adults, are not consuming the amount of calcium recommended by the Food and Nutrition Board. This is often referred to, as you know, as the RDA, or Recommended Dietary Allowances.

I brought with me a copy of two graphs which I understand the members of the subcommittees have a copy of. The two graphs were prepared from data generated by the second HANES study, that is, the study that was conducted in 1976 through 1980. They plot the calcium intake versus age. Just to explain the legend that we have used there, the solid line represents mean calcium intake, the dotted line the median calcium intake, and the heavy broken line, the calcium RDA.

If you will look at the graph showing the daily calcium intake for males, you will note that the mean intake is at or above the RDA through age 64. However, looking at the median intake, it falls below the RDA after age 34. The situation for females is much worse. You will note that both the mean and median calcium intakes fall below the RDA after age 12.

In order to investigate some of the effects of this trend, we have placed a greater emphasis in our grant-in-aid program on the role of dietary calcium in health, especially as it relates to bone health and blood pressure regulation. In addition, we also use this type of data in the development of policy statements. A recent communication from National Dairy Council to the Dietary Guidelines Advisory Committee pointed out the major public health problem of osteoporosis and cited data from Government surveys regarding the high proportion of the population with calcium intakes below the Recommended Dietary Allowance for this nutrient. We urged the committee to address the escalating public health problem of osteoporosis and its implications in formulating Dietary Guidelines for Americans. We pointed out that the results of Government surveys indicate a great need to educate the public about the necessity of adequate calcium intake in order to reduce the risk of osteoporosis. With the cost of osteoporosis estimated at $3.8 billion annually in the United States, we believe that educational efforts to reverse the trend of inadequate calcium intake are important to the Nation's health.

In order to meet the information needs of users such as our organization, we feel that the nutrition monitoring system must incorporate certain features. Such a system must be national in scope, and we believe this is important, especially, to our programs, because our programs are also national in scope. The manpower and funding needed to carry out such a nationally representative survey can only be made possible through Federal Government directives.

Another important feature of a national nutrition monitoring system is the coordination among the various agencies conducting the nutrition surveys. By assessing the food consumption patterns, nutritional status, and health status on a common sample population, conclusions could be more accurately drawn as to the public health significance of the findings. In addition, we believe that this coordinated effort would enhance the standardization of data collection, the analysis and reporting, and thereby facilitate comparison and interpretation of the surveys and also provide a more comprehensive picture of the nutritional status of the population.

We believe that another desirable feature of a national nutrition monitoring system is the timeliness of the data collection and reporting. This is important if we are to monitor the trends and changes over time and if we are to get current as well as comprehensive information.

The overall effectiveness of these surveys would be enhanced also by the establishment of an advisory council consisting of experts from various health and nutrition related fields. We believe that a forum of experts such as this is essential in guiding the coordinated surveys and also in the development, the implementation, and interpretation of the survey results.

In addition to the advisory council, we feel that input from other interested organizations and individuals should be obtained through an appropriate comment period. Such input would help ensure that the nutrition monitoring system is responsive to the needs of those who use the survey data.

In summary, National Dairy Council supports the concept of a nutrition monitoring system that is national in scope; coordinated among various agencies involved in nutrition monitoring activities; conducted, analyzed, and reported in a timely manner; and responsive to user needs. This concept, we believe, would enhance nutrition research and education efforts, facilitate the provision of an adequate food supply and help direct national policies and programs.

National Dairy Council believes that this concept is addressed in the National Nutrition Monitoring and Related Research Act of 1984. It is important, however, that adequate input be received from the agencies that would be involved in a coordinated National Nutrition Monitoring System. NDC believes that the hearing today, involving the U.S. Departments of Agriculture, Defense, and Health and Human Services is a step in the right direction.

Thank you very much for the opportunity to present our views.

[The prepared statement of Dr. Alcantara follows:]

STATEMENT
OF THE
NATIONAL DAIRY COUNCIL

ON

THE NATIONAL NUTRITION MONITORING
AND RELATED RESEARCH ACT OF 1984
(H.R. 4684)

BEFORE THE

SUBCOMMITTEE ON SCIENCE, RESEARCH AND TECHNOLOGY
HOUSE COMMITTEE ON SCIENCE AND TECHNOLOGY

AND

SUBCOMMITTEE ON DEPARTMENT OPERATIONS,
RESEARCH AND FOREIGN AGRICULTURE
HOUSE COMMITTEE ON AGRICULTURE

Presented by
Emerita N. Alcantara, Ph.D., R.D.
Assistant Director of Nutrition Research
National Dairy Council
June 20, 1984

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Messrs. Chairmen and members of the Subcommittees: I am Emerita N. Alcantara, Ph.D., R.D., Assistant Director of Nutrition Research for National Dairy Council. I appreciate the opportunity to appear before you today to discuss the importance of a coordinated National Nutrition Monitoring System. On behalf of the National Dairy Council, I thank you for inviting us to testify at this hearing and present our views on the National Nutrition Monitoring and Related Research Act of 1984 (H.R. 4684).

Established in 1915, National Dairy Council (NDC) is a nonprofit educational-scientific organization whose mission is to contribute to optimal health through leadership in nutrition research and nutrition education. Dairy Council is both a national and a community program, with the national office directing the national programs, and approximately 300 regional, state, and community Dairy Council professional staff members bringing these programs and services to their respective areas throughout the United States.

I will focus on certain provisions of the National Nutrition Monitoring and Related Research Act of 1984 as they relate to our usage of the data from the Nationwide Food Consumption Survey (NFCS) and the National Health and Nutrition Examination Survey (NHANES). In developing and implementing nutrition research and nutrition education programs, NDC draws from the data bases generated by NFCS and NHANES. These data help form the basis for NDC's nationwide efforts to inform the American public about wise food choices and the importance of adequate nutrient intake.

NDC publishes a wide spectrum of nutrition education materials and programs for a variety of audiences, such as health professionals, elementary and secondary school teachers, and consumers of all ages. In addition to the traditional printed materials and programs, we have also developed computer programs, films, and videotapes. NDC and its network of affiliated Dairy Council units placed over nine million pieces of education materials across the country in 1983. In recognition of its "excellence in providing scientifically sound nutrition education to the American public," NDC was named by the American Dietetic Association and the American Dietetic Association Foundation as the first recipient of their "Presidents Circle Nutrition Education Award."

In addition to utilizing the NFCS and NHANES data in its educational materials and programs, NDC also uses these data in providing direction to its nutrition research grant-in-aid program. For example, both the NFCS and NHANES data have shown that many Americans, especially adults, are not consuming the amounts of calcium recommended by the Food and Nutrition Board of the National Academy of Sciences-National Research Council (i.e., the Recommended Dietary Allowances or RDA). To investigate some of the effects of this trend, NDC has placed greater emphasis in the grants-in-aid program on the role of dietary calcium in health, especially as it relates to bone health and blood pressure regulation.

In addition, NDC uses the NFCS and NHANES data in the development of policy statements. A recent communication to the Dietary Guidelines Advisory Committee* pointed out the major public health problem of osteoporosis (a condition of severe bone loss and increased risk of fractures) and cited data from NHANES and NFCS regarding the high proportion of the population with calcium intakes below the Recommended Dietary Allowance for this nutrient. The Committee was urged to address the escalating public health problem of osteoporosis and its implications in formulating dietary guidelines for Americans. It was pointed out that the results of government surveys indicate a great need to educate the public about the necessity of adequate calcium intake throughout life in order to attain maximum peak bone mass and reduce the rate of bone loss in later years. With the cost of osteoporosis estimated at $3.8 billion annually in the United States, educational efforts to reverse the trend of inadequate calcium intake are important to the nation's health.

In order to meet the information needs of users such as NDC, a nutrition monitoring system must incorporate certain features. Such a system must be national in scope since our programs are also national in scope. The manpower and funding to carry out such comprehensive, nationally representative surveys to identify nutritional problems of public health significance can only be made possible through federal government directives.

Another important feature of a national nutrition monitoring system is the coordination among the various agencies conducting nutrition surveys. Such coordination would facilitate the effective utilization of data from these surveys. For example, by assessing the food consumption patterns, nutritional status, and health status on a common sample population, conclusions could be more accurately drawn as to the public health significance of the findings. In addition, a coordinated effort among the various agencies would enhance standardization of data collection, analysis and reporting, thereby facilitating comparison and interpretation of the surveys and also providing a more comprehensive picture of the nutritional status of the population.

Another desirable feature of a national nutrition monitoring system is the timeliness of the data collection and reporting. In order to monitor trends and changes over time, it is essential that these surveys be conducted continuously and that the results be issued in a timely and coordinated fashion so that the information is current and comprehensive. For example, while final data on the fat and cholesterol intakes for men and women in the United States from 1976-1980 (NHANES II) have been published, serum cholesterol values have not been published from this same survey. Yet, federal policy decisions have been and are being made regarding the significance of dietary fat and cholesterol as they relate to blood cholesterol, coronary heart disease and cancer.

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* A committee established to review comments on the publication, "Nutrition and Your Health...Dietary Guidelines for Americans" and to report to the Secretaries of the U.S. Departments of Agriculture, and Health and Human Services.

The overall effectiveness of these surveys would be enhanced also by establishment of an Advisory Council consisting of experts from various health- and nutrition-related fields. A forum of experts from a wide variety of disciplines is essential to guiding the coordinated surveys, just as a wide range of disciplines is needed to carry out health and nutrition care at the grass-roots level. For example, experts from the fields of administrative and clinical dietetics guide the food choices of the institutionalized, hospitalized, or otherwise "captive" American public, including the growing number of elderly in nursing homes. Those eminent in the field of community nutrition/public health nutrition are leaders in the area of nutrition guidance for the general public, including those at high risk nutritionally such as pregnant women, infants, children and the elderly. The nutrition scientists can apply the growing knowledge of nutrient bioavailability to the importance of food choices and patterns. These experts along with others will add their areas of expertise to the development, implementation, and interpretation of the coordinated surveys. In addition, this Council would allow for representation from a wide variety of interests including academia, industry, scientific and professional groups, and public interest organizations. Each of these represents the American public in their own way and can contribute to the quality and effectiveness of the coordinated surveys.

In addition to the Advisory Council, NDC feels that input from other interested organizations and individuals should be obtained through an appropriate comment period. Such input would help ensure that the nutrition monitoring system is responsive to the needs of those who use the survey data.

In summary, National Dairy Council supports the concept of a nutrition monitoring system that is national in scope; coordinated among various agencies involved in nutrition monitoring activities; conducted, analyzed and reported in a timely manner; and responsive to user needs. This concept would enhance the utilization of the data by the nutrition community, the food industry, the federal government and many others. It would also enhance nutrition research and education efforts, facilitate the provision of an adequate food supply, and help direct national policies and programs.

National Dairy Council believes that this concept is addressed in the National Nutrition Monitoring and Related Research Act of 1984. It is important, however, that adequate input be received from the agencies that would be involved in a coordinated national nutrition monitoring system. National Dairy Council believes that the hearing today, involving the U.S. Departments of Agriculture, Defense, and Health and Human Services, is a step in the right direction.

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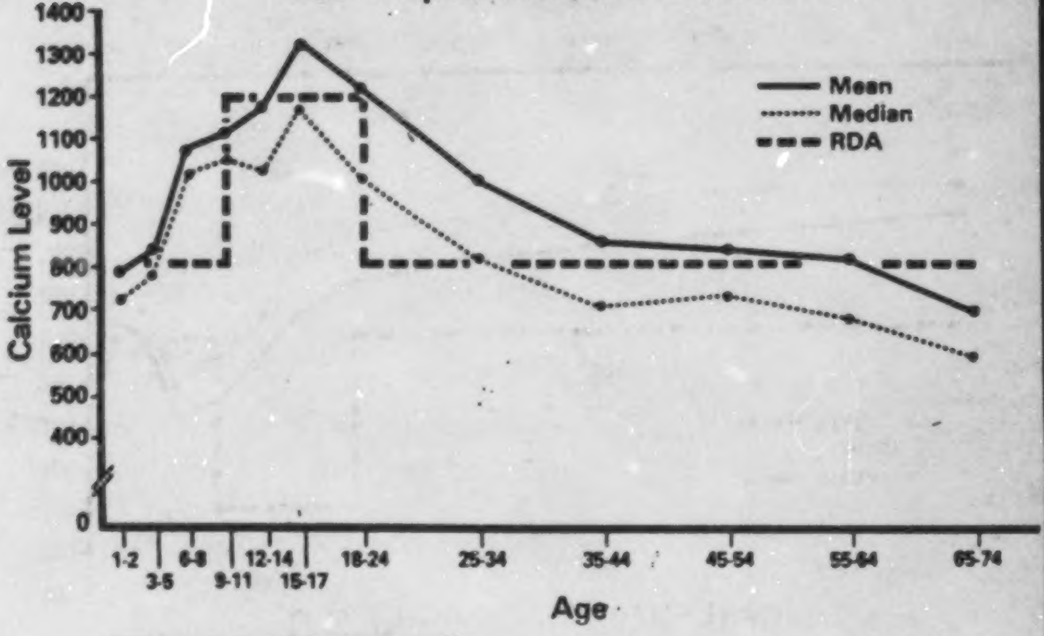
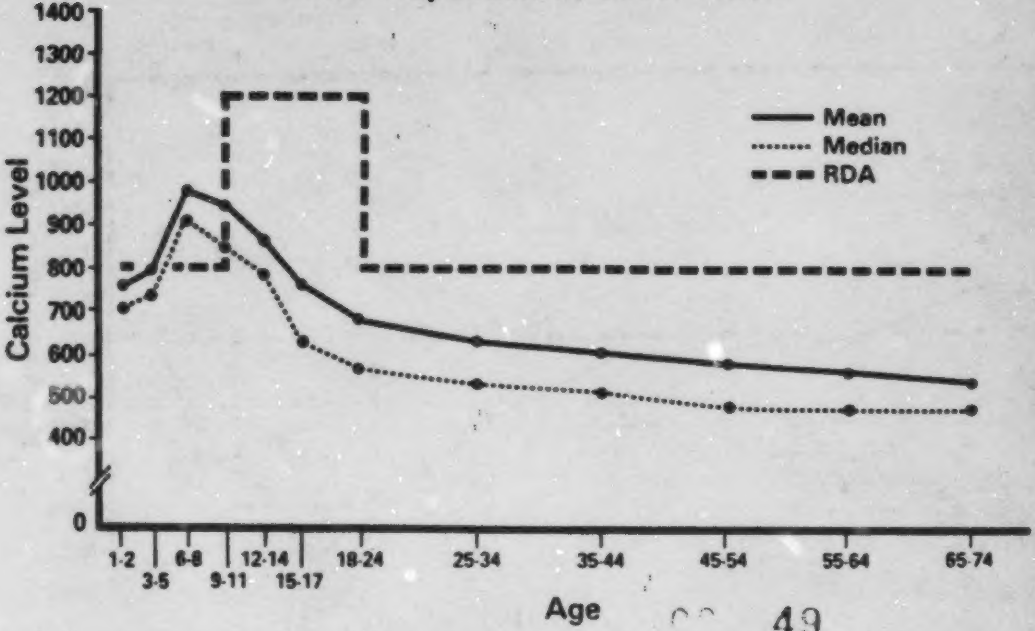
Daily Calcium Intake (mg) for Males
U.S. Population, 1976 - 1980



DHHS Publication No. (PHS) 83 - 1681, March 1983

Daily Calcium Intake (mg) for Females
U.S. Population, 1976 - 1980



DHHS Publication No. (PHS) 83 - 1681, March 1983

BIOGRAPHICAL SKETCH

Emerita N. Alcantara, Ph.D., R.D., is Assistant Director of Nutrition Research for the National Dairy Council in Rosemont, Illinois. Her education includes a B.S. degree from the University of the Philippines and M.S. and Ph.D. degrees from the University of Wisconsin/Madison. Her professional training and experience include externship at the Food and Nutrition Research Institute in Manila, Philippines; dietetic internship at Yale-New Haven Hospital in New Haven, Connecticut; work as a therapeutic dietitian at the University of Wisconsin Hospitals; and research assistantship at the University of Wisconsin/Madison. In her present position, she deals with nutritional science and public policy issues. She is a member of several professional organizations including the American Institute of Nutrition and the American Dietetic Association, and serves as a hospice volunteer for Community Nursing Service in Oak Park, Illinois.

Mr. Brown. Thank you very much, Dr. Alcantara.
Ms. Parker.

STATEMENT OF LYNN PARKER, NUTRITIONIST, FOOD RESEARCH & ACTION CENTER, ACCOMPANIED BY BARBARA HOWELL, POLICY ANALYST, BREAD FOR THE WORLD

Ms. Parker. Mr. Chairman and subcommittee members, I want to thank you, too, for inviting me to speak today and for having the opportunity to speak today concerning H.R. 4684.

I am Lynn Parker. I am the senior nutritionist of the Food Research & Action Center. Accompanying me is Barbara Howell, a policy analyist from Bread for the World, which is a Christian citizens' movement against hunger.

Both of our organizations have had a longstanding interest in reaching the goals of H.R. 4684, particularly as they seek to provide timely and useful data about the nutritional problems of low income people. We also represent today and speak for 25 other organizations, consumer, antihunger, senior, and religious groups. These 25 organizations are listed in the last page of the testimony, so I won't read them all to you and take up that time.

Mr. Brown. Put them on the first page next time.

Ms. Parker. Right. I thought about that afterward.

We, and when I say we I am talking from all these organizational hats, strongly support what we see as the four main purposes of H.R. 4684. The first is the coordination of information gathered by agencies that do nutrition monitoring in order to get comparable data. We know that each agency has a special interest and special expertise in nutrition monitoring, but we think that better coordination of the surveys would be a great improvement over the current situation.

Second, the gathering of information that is especially needed by policymakers. We are particularly supportive of the emphasis in the bill on getting more local data and on getting information about subgroups at risk, especially low income people. Unfortunately, right now, most data collected, as you have heard from other witnesses, is national in scope and can't be broken down by geographic areas or subgroups.

Third, the more timely reporting of data. As Mr. Panetta spoke about at the beginning, most of the data we have is 6 to 10 years old. It is very difficult to identify current problems right now. For us, that means the incidence of hunger and malnutrition and the effect of the recession on that problem in the United States or the impact of cutbacks in food programs.

Fourth, the need for the improvement of methodologies and indicators used in gathering nutritional data. We understand that although we are not the researchers, the refinement and standardization of these methods is possible and desirable. We also believe that there should be new indicators developed to meet our current needs for information.

We have a special interest in this bill because of our daily work with the issues of hunger and the adequacy and accessibility of food programs. We understand, and particularly I understand, as a nutritionist, to put on my nutritionist hat for a minute, that this bill and this nutritional surveillance and monitoring system deals with the total population and can be used to investigate a large range of issues and problems that we face as a country in the area of nutrition. However, our special interest and the special interest of the other groups we are speaking for is what this coordinated, improved, and more timely survey could tell us about undernutrition, especially in certain geographic areas and among low income people. This is a very important piece of the whole, and it is one to which any good national monitoring system should pay attention.

The situation we find ourselves in today shows the need for an improved and more timely information. Numerous signs around us point to the fact that there is an increasing problem with hunger and malnutrition in the United States. I know you have all heard about the problem in newspapers, heard it in your own hearings here on the Hill, heard it from your colleagues. There have been surveys from local communities and States. There has been the recent physicians task Force in New England, and surveys from groups like ours and groups that we represent, from the Conference of Mayors, from the General Accounting Office, newspaper accounts by investigative reporters, study results from physicians and nutritionists and health professionals, and the countless hearing records from Members of Congress, select committees, even the President's Task Force on Food Assistance. In spite of all this growing evidence, we still hear officials say that the reports are anecdotal, that they are perplexed by the reports of increasing hunger, and as I said, the President's task force even said they couldn't gauge the extent of hunger and that a better nutrition monitoring system should be put in place.

I think it is clear that we need this system, and we need to look at this issue. H.R. 4684 works toward these important goals of getting this kind of information because it attempts to coordinate the various surveys. We think that the coordination of the surveys could be a more cost effective use of the funds and a more cost effective use of data. Timeliness improvement could really help this situation. We could have a better idea of the current food consumption and nutritional status of our population with this bill.

The gathering of information in such a way that it could be broken down and estimates could be made on smaller groups and geographic areas would be helpful. Sometimes the problem of undernutrition in this country gets lost in the sea of data about everybody.

Improved methodologies could help us. We need to pick up more than overt signs of malnutrition, such as anemia and growth stunting. We need an early warning system so that we can catch problems before they become so severe that they show up in clinics. We think that the combination of relevant demographic data and other data about food consumption, food expenditures, periods of not being able to get food, that kind of information would be very useful to public policymakers in the future to detect these problems before they become severe.

That leads to the important emphasis this bill has on State and local data collection. We are really pleased to see that the bill lists as a purpose the establishment of mechanisms for addressing the nutrtion monitoring needs of State and local governments. We hope that you maintain that emphasis as you talk about the bill.

We also think that a modest amount of funds should be allocated to assist State and local governments and health departments in improving their nutritional monitoring efforts in combination with the Federal efforts. We hope this kind of Federal help and coordination could lead to the common set of data rather than having 50 different data sets that can't be compared, that we would have some common data collected by all States.

Turning to another issue we think the bill deals with quite well is the whole issue of the outside involvement, the people looking in from the outside who need this information. We think the advisory council speaks to that issue very well. Our only concern is that there are Federal Government employees on the advisory council. We don't have anything against Federal Government employees. We think they are wonderful people, but we think that the council should be independent because of its purpose. Its purpose is to be sort of an outside fresh look and a scholarly look at these issues, and that by keeping those two, the directorate and the council, independent in that way would be helpful.

On the other hand, we suspect that the reason the Federal employees were put there was to make some kind of connection between those two so that the information would flow. Perhaps that can be handled in a different way. We also understand that need.

One other concern about the advisory council, and this is a concern from our interest, is it is not clear in the area of our folks, the people who represent low income people, it is not clear how those individuals and organizations would be represented on the advisory council, how many people would serve, how they would be appointed. We would urge you to make it clear in your discussion about the bill that these organizations should be represented. Often, we get left off of advisory councils like this. By we, I don't necessarily mean my organization or Barbara's, but rather, low income people have a great stake in this bill and the kind of information that could be provided, and there should be some representation of those kinds of concerns and interests.

We also applaud the requirement that the draft of the plan be submitted to Congress and be available for public review 6 months after the bill is enacted. We know that sometimes these processes drag out, and it is important to have some time limit. We also think that a public review of the plan would strengthen it, and we suggest that somehow that document be wider spread, perhaps printed in the Federal Register, and that the directorate received comments from the public in the 60-day period required in the bill and that the document in some way respond to those comments.

One other concern relates to the competitive grants program. Although we support the grants program, we are concerned that some smaller organizations, businesses, nonprofit agencies might not be able to compete for funds because they don't have the resources of larger organizations or government. We would urge you to clarify the definition of appropriate matching grants to take care of that problem.

We understand that the administration will oppose this bill, although we don't know for sure yet because we haven't heard them, and we suspect what they will say that they already have the mandate and already have the resources to carry out the program, and that they are doing it now. We would disagree with that, and I think it is clear from the other witnesses that they probably would also disagree. As you have pointed out, the HANES Survey appears to be delayed at least 1 year. The USDA survey has suffered some cuts and staff reductions. We don't have the information we need, and a remedy is in order. There doesn't seem to be a question of that from what we have heard today. The surveys ought to be continuous. They ought to be accountable to policymakers like yourselves and to the public. The current system just doesn't allow for that kind of continuity and that kind of accountability. We think a congressional mandate, such as the one provided by H.R. 4684, is needed to move us to a better nutrition monitoring system.

One postscript, perhaps, is that we want to add that we don't think we have to wait for this data system to be put in place over the next 10 years to deal with the current nutrition problems that we have. We feel that we should be increasing funding for food and nutrition programs based on the evidence available now and not cutting them.

In the future, however, it would be extremely helpful to have data that would be produced by the national system to keep us from facing the kind of policy dilemmas we are facing right now and that you are facing right now. Hopefully, this system could detect nutrition problems before they become severe and help us prevent nutrition problems on the broader scale, not just in the area of hunger and help us to bring down health care costs in the future.

A fear that some of our organizations that we speak to have is that in the future, if food programs are expanded and improved, favorable findings on nutritional status might lead Congress to say well, let's cut the programs now that everybody is well-nourished.

We just want to add that when that time comes, and we hope it does when they are all well-nourished, that policymakers will recognize and look into the idea that it may be an indication that the programs, the food programs and other programs that are available, have been successful in meeting the food needs of low income people.

In summary, I would just like to say that we think the United States should have a truly national nutrition monitoring system, and it should have been in place long before now. We think that people in our country in general view adequate nutrition the way they do a safe water supply or a healthy sewage system, to put it in most concrete ways, down to earth ways, that everybody should have access to adequate nutrition so that people can develop normally, so they can learn, so they can resist disease, and so they can be productive human beings. If that is true, then it makes sense for us to have a system to warn us when segments of our population don't have access to adequate nutrition.

We think what this bill does is take the resources that we currently have in nutrition monitoring and coordinate them better, use them in a more cost-effective manner. We urge all of the subcommittee members to move H.R. 4684 through the legislative process as soon as possible. We think it would be a great improvement.

We want to thank you again for the opportunity to express our views. We will both be available for questions. Thank you.

[The prepared statement of Ms. Parker follows:]

TESTIMONY ON H.R. 4684
THE NATIONAL NUTRITION MONITORING AND RELATED RESEARCH ACT OF 1984

BEFORE THE
House Subcommittee on Science, Research and Technology
and
House Subcommittee on Department Operations,
Research and Foreign Agriculture

June 20, 1984

Messrs. Chairmen and Subcommittee Members, thank you very much for the opportunity to speak to you today concerning H.R. 4684, the National Nutrition Monitoring and Related Research Act of 1984. I am Lynn Parker, Senior Nutritionist at the Food Research and Action Center, and accompanying me is Barbara Howell, Policy Analyst at Bread for the World, a Christian citizens movement against hunger. Both of our organizations have had a long-standing interest in reaching the goals outlined by H.R. 4684, particularly as they seek to provide timely and useful data about the nutritional problems of low income people. Today, we are not only speaking for our own organizations but also for over twenty consumer, anti-hunger, senior, and religious groups, which are listed at the end of our written testimony.

Purposes of the Bill

We strongly support the four main purposes of H.R. 4684:

1. The coordination of information gathered by agencies that do nutrition monitoring, in order to get comparable data. Each agency has a special interest and expertise, but better coordination of the surveys would be a great improvement over the present situation.

2. The gathering of information especially needed by policy-makers. We are particularly supportive of the emphasis in the bill on getting more local data, and on getting more information on sub-groups at risk, especially low-income people. Unfortunately most data collected now are national in scope and cannot be broken down by geographic area or sub-group.

3. The timely reporting of data. Currently most information we have is 6-10 years old, and therefore is not very useful in identifying current problems, such as the increasing incidence of hunger and malnutrition resulting from the strains of the recent economic recession and cutbacks in federal food assistance programs.

4. The improvement of methodologies and indicators used in gathering nutritional data. We understand that refinement and standardization of current methods is both possible and desirable. We also believe that new indicators must be developed to meet our current needs for information.

Special Interest in Low-Income People

We are certain that all those testifying today in support of H.R. 4684 share our interest in these four purposes. However, we have a special interest in this bill because of our daily work with the issues of hunger and the adequacy and accessibility of food programs. Although we understand that nutrition monitoring and surveillance, especially as envisioned by this bill, are broadly concerned with the nutritional status and food consumption of the total population and can be used to investigate a large range of problems and issues including overnutrition, the availability of specific nutrients in the food supply, agricultural planning, the development of nutrition education programs, etc., our special interest is in what a coordinated, improved, and more timely survey could tell us about undernutrition -- in certain geographic areas and among low-income people.

Need for More Timely Data

The situation we find ourselves in today shows the need for improved and more timely information. Numerous signs around us point to the fact that there is an increasing problem with hunger and undernutrition in the U.S. -- the surveys from local communities and states; studies carried out by a physician's task force in New England; surveys by groups like Bread for the World, FRAC, Center on Budget and Policy Priorities, GAO, U.S. Conference of Mayors; newspaper accounts by investigative reporters; study results that are beginning to come in from nutritionists, physicians, and other health professionals; and the hearing record from countless hunger hearings held by members of Congress, Select Committees, Field Foundation - sponsored fact-finding tours, governors and mayors, and even the President's Task Force on Food Assistance. In spite of all that growing evidence of a problem, officials have said that the reports are only anecdotal, and, that they are "perplexed" by reports of increasing hunger. The President's Task Force reported that they could not gauge the extent of hunger and that a better nutrition monitoring system should be put in place.

Need for a Better System

It is clear that we should find a better way to monitor nutritional problems of people in this country:

- The coordination of current surveys could help this happen. Coordination could lead to more cost-effective use of funds and data collected.

- Improved timeliness could help this happen. We could and should have a much better idea of the current food consumption and nutritional status of our population.

- The gathering of information in such a way that it could be disaggregated by geographic area and smaller groups at risk could help this happen. The problem of undernutrition can be lost in a sea of data unless we are able to look at small groups and areas.

- Improved methodologies used in gathering nutritional data could help this happen. We need to be able to pick up more than overt signs of malnutrition -- growth stunting, anemia, etc. We also need an early warning system that people are not getting enough food. Other indicators should be used or developed to "catch" hunger before clinical malnutrition develops, such as a combination of relevant demographic information. This could include expenditures for food and other household needs, access to food (e.g. participation in food assistance programs), income, receipt of public assistance, education, and any periods experienced where resources were not adequate to provide a sufficient amount of food.

Need for State and Local Data Collection

Also important is an emphasis on state and local data collection. We are pleased to see that this bill lists as a purpose the establishment of mechanisms for addressing the nutrition monitoring needs of state and local governments. We also note that the plan developed by the Directorate must assist state and local agencies in developing procedures and networks for nutrition monitoring and surveillance and must produce an inventory of state and nongovernment activities related to nutrition monitoring. We urge that this state and local emphasis be maintained in the bill and that every effort be made to ensure common data collection. We also urge that a modest amount of funds be allocated to assist state and local governments in improving their current nutrition monitoring efforts. We believe that this kind of federal coordination and technical assistance will lead us away from fifty different data bases and toward common data collection in every state.

Need for Outside Involvement

Another issue of great importance to us is the need for outside scrutiny of nutrition monitoring plans and activities. Thus, we applaud the concept of an Advisory Coiuncil. However, the bill includes federal government employees as members of the Advisory Council. The independence of the Council is essential in order for it to serve its purpose. Therefore, we believe that federal employees should not qualify as members of the Council. They are already well-represented on the Directorate. Nevertheless, we urge you to make it clear in your deliberations over the legislation that the Directorate must provide information to and be accountable to the Advisory Council.

The bill is unclear about how the members of the Advisory Council (specified in Sec. 201(d) of the bill) are to be appointed and how many people would serve. We are especially concerned that individuals and organizations representing the interests of low-income people are well-represented on the Council, and we urge you to make it clear in your discussions regarding the bill that these organizations should be well-represented.

We also applaud the requirement that the draft of the comprehensive plan developed by the Directorate be submitted in draft form to the Congress and for public review within six months after the bill is enacted. We think timelines are essential to get this process moving as quickly as possible. Moreover, public review will strengthen the national monitoring plan. Our questions are: How will the document be made available to the public? How will the Directorate receive public comments? We would suggest that the document be printed in the Federal Register, that the Directorate receive comments from the public for the sixty-day period as required in the bill, and that the final document submitted to Congress respond to public comments received.

One other concern of ours is that the competitive grants program appears to put groups without large resources for matching funds comparable to the government at a disadvantage. Therefore, we urge you to clarify the definition of "appropriate" matching grants by assuring that special consideration be given to smaller organizations and non-profit agencies.

Administration Position on Bill

We understand that the Administration will oppose this bill on the grounds that federal agencias already have the mandate and resources to carry out the program envisioned by the bill, and that they are in fact doing it. We would disagree. We do not have information we need, currently the Health and Nutrition Examination Survey (HANES) appears to be delayed another two years, and USDA's survey has been threatened with drastic cuts and staff reductions. Clearly a remedy is in order to improve our national system of nutrition monitoring. Nutrition surveys must be continuous, and they must be accountable to policy-makers and the public. Even the President's Task Force on Food Assistance made this point. Yet the current system does not ensure continuity or accountability. We believe a Congressional mandate such as that provided by H.R. 4684 is needed in order to move us beyond the current inadequate nutrition monitoring system.

Action To Improve Food Programs Needed Now

However, we should not have to wait for this data system to be put in place to respond to current nutrition needs. We should be increasing funding for our food and nutrition programs, not cutting them. In the future, data produced by a national system as described in the bill would keep us from facing again many of our current policy dilemmas. The information we gain from a better system of national nutrition monitoring would be useful in detecting nutrition problems before they become severe, preventing nutrition problems, and thus, helping to bring down high health care costs. This system would also be useful in looking at the need for nutrition programs, the kinds of programs needed, and the outcomes of current nutrition programs.

A fear that some of our sister groups have raised is that in the future, if food programs are improved and expanded, favorable findings on nutritional status and/or food consumption of low income people will be used as a rationale for ending or cutting food programs. We hope that, instead, policy-makers will recognize this is an indication of the success of the food programs in meeting with the food needs of low-income people.

Need for A National Monitoring System

The United States should have had a truly national nutrition monitoring system in place long before now. We believe that most people in our country view adequate nutrition the way they do a safe water supply or healthy sewage systems -- everybody should have access to the nutrition he/she needs to develop normally, learn, resist disease and be a productive human being. We ought to have a system in place that warns us when segments of our population do not have access to adequate nutrition. What this bill does is take the resources we are currently using for nutrition monitoring and direct that they be used in a coordinated and more cost-effective manner. It also realigns some of the priorities for the use of these funds. It is urgent that we get this underway. We urge you as members of these two important subcommittees to move the National Nutrition Monitoring and Related Research Act of 1984, H.R. 4684, through the legislative process this year, if at all possible. Thank you for the opportunity to express our views. If you have any questions, both Barbara Howell and I would be happy to answer them.

Organizational Endorsers

American Baptist Churches
American Home Economics Association
Black Child Development Institute
Bread for the World
Center for Science in the Public Interest
Center on Budget and Policy Priorities
Children's Defense Fund
Coalition on Block Grants and Human Needs
Community Nutrition Institute
Episcopal Church
Federation of Jewish Philanthropies, New York
Food Research and Action Center
Friends Committee on National Legislation
Health USA
IMPACT
Interfaith Action for Economic Justice
League of United Latin American Citizens
Mennonite Central Committee, USP Section, Washington Office
National Consumers League
National Council of Senior Citizens
National Farmers Union
National PTA
Public Voice for Food and Health Policy
Rural America
United Church of Christ, Office of Church and Society
World Hunger Education Service
World Hunger Year

Mr. **Brown**. Thank you very much, Ms. Parker. Your testimony is really excellent.

Ms. **Parker**. Thank you.

Mr. **Brown**. We have one additional indication of support from a public interest group. I use the term loosely. It is the National Milk Producers Federation in support of the bill. If I may read just a paragraph, it says:

> The Nationwide Food Consumption Survey, the National Health and Nutrition Examination Survey, and the Center for Disease Control Survey have been invaluable sources of information to our industries—

That is the milk producers—

> By providing information regarding the consumption of the foods we produce and by guiding our efforts to educate the public about good nutrition and the role our commodities play in the pursuit of excellent nutrition.

It is also signed by the National Grange, the National Pork Producers Council, and the United Egg Producers.

I would like to have this inserted in the record at this point.

[Letter of National Milk Producers Federation follows:]

nmpf
National Milk Producers Federation
1840 Wilson Blvd., Arlington, VA 22201
703-243-6111

Patrick B. Healy
Chief Executive Officer

June 20, 1984

The Honorable Doug Walgren, Chairman
Subcommittee on Science, Research
and Technology
Committee on Science and Technology

The Honorable George E. Brown, Chairman
Subcommittee on Department Operating
Research, and Foreign Agriculture
Committee on Agriculture

Dear Msers. Chairmen:

There is no issue more important to a nation or its people than the availability and the use of food. The health and welfare of the people of United States is of vital interest to all of us. We, as representatives of agricultural producers, take a special interest in the nutritional intake of Americans because it is our business to continue providing the agricultural abundance of our nation. Therefore, H.R. 4684, the National Nutrition Monitoring and Related Research Act of 1984 is of great interest to our organizations in its purview of establishing a national nutrition monitoring and research program.

The Nationwide Food Consumption Survey, the National Health and Nutrition Examination Survey,and the Center for Disease Control Survey have been invaluable sources of information to our industries by providing information regarding the consumption of the foods we produce and by guiding our efforts to educate the public about good nutrition and the role our commodities play in the pursuit of excellent nutrition.

We applaud the efforts of the Committee on Science and Technology and the Committee on Agriculture and request that this letter be made a part of the record of testimony in support of H.R. 4684.

Yours truly,

Patrick B. Healy, Chief Executive Officer
NATIONAL MILK PRODUCERS FEDERATION

And for:

The National Grange
National Pork Producers Council
United Egg Producers

Norman H. Barker, President James P. Camerlo, Jr., First Vice President Herbert Selbrede, Second Vice President

Mr. **Brown**. Now, I would like to recognize Mr. Walgren for any questions that he might have.

Mr. **Walgren**. Thank you, Mr. Chairman.

I would like to express my appreciation to the witnesses for their testimony and the work that has gone into presenting the statements, particularly underscore how difficult it is to get a consensus out of different groups and to again express the appreciation of my part of the committee for the work that has gone into these consensus statements. I think your testimony will have greater weight because of that.

Let me raise just the general question of the concept of a directorate versus the lead agency. I know some of you have touched on that in your testimony, but perhaps some conversation about it might be useful.

We do propose in this bill a directorate that is made up of leaders from a number of different agencies as opposed to designating one lead agency. Do you have concerns that this will be extremely unwieldy?

Dr. **Nesheim**. I think you have asked a question that nobody likes to tackle, how you coordinate activities in nutrition in the Federal Government, because it is a question that those of us that have been dealing with nutrition issues have been struggling with for a long, long time. I sat on an Office of Technology Assessment panel several years ago in which we tried to look at the organization of nutrition within the Federal Government. You always run into this problem of which agency is going to have the lead, how do you get around the problem of individual agencies' turf, and feeling that their responsibilities are perhaps greater than another, or if another agency takes responsibility, then that means that there is some designation of responsibility of areas of nutrition that they are really not willing to give up.

So the whole issue of lead agency versus a directorate—I think this is a creative solution. Whether it in fact will work or not, I am not really prepared to say. But I think that it is obviously a creative solution to the problems that have been raised by other efforts to coordinate nutrition in the past.

Mr. **Walgren**. Are there other comments that people would like to make?

Dr. **Heimendinger**. I would agree with Dr. Nesheim's statement. The inclusion of three departments as the lead chairpersons for the directorate I think is a creative solution to a dilemma, and hopefully that would help to some extent, but I do agree that it is difficult when you have a variety of departments responsible for different aspects of nutrition within the Government. Again, I think that perhaps this attempt at a directorate is one of the best creative solutions we have seen to this point.

Mr. **Walgren**. Are there other thoughts?

[No response.]

Mr. **Walgren**. Let me then ask on another subject, as I understand it, there is sort of a tension between the work that is done on State and local levels in this area and a national, unified national system. That reflects itself in, as I understand it, the resistance by the administration to what they call a national nutritional status network which would be at least promoted by the bill. The Department of Agriculture witnesses will make the point that a national nutritional status network may not be helpful to States and local areas who often have different data needs.

At the same time, under this bill, we want to provide some grants to encourage State and local efforts to develop reviews of their areas. How do you relate those local reviews that you feel would be helpful to measure with the national unified system? Is there a conflict there that would mean that a national network would not be helpful?

Dr. **Heimendinger**. I think that perhaps the bulk of our testimony was really from the State and local perspective and the concept that the national network would be very helpful but that it definitely needs a lot more exchange in the process of building it between the State and local levels and the national level. We did suggest specifically ways in which that might be done in the existing legislation. Indeed, the information that is coming out of the Federal Government is extremely valuable to be collected and some of the suggestions that we made are merely ways in which that data could be reported to make it more useful at the State and local levels for precisely finding some of the indicators that we think are important for doing the monitoring and necessary for us to know to be able to catch nutrition problems before they become severe.

I think that our suggestions in the testimony were really to try to make that national system a little more responsive to the State and local needs for that kind of data.

Mr. **Walgren**. Are there others who would like to respond?

Dr. **Nesheim**. I think that one has to recognize that any survey that one designs is going to be more effective the more specific you have in mind what the purpose of that particular survey might be. Therefore, State and local efforts in monitoring and surveillance often have some rather specific local needs that have to be addressed by these State and local efforts. I don't really think there is tension between data gathered from a national picture which can help feed into a regional and more local analysis and the State efforts. I think these have to be viewed as complementary efforts. Many of the State efforts are carried out for very specific reasons within the States, and probably are more effective because they can be done at that level. That doesn't replace the need for national data. I think the complementary nature of these two things really will be addressed once we have a national system in place.

Ms. **Parker**. I would take an example from personal experience on showing that there isn't that tension there, and what the need is also. We, at FRAC, held a meeting in early March where we brought together about 15 people who were working on local and State nutrition surveys and were struggling with how to do them. In fact, Jerianne was one of those people.

What we discovered was that very few of them had talked to each other about what they were doing, and they were struggling at the local level to create something that was needed because the State needed the information or because a local group of county commissioners needed the information. The first thing we recognized was that they needed to talk to each other, so that national network, I think, would actually be useful in creating that kind of cross discussion.

However, the other thing they said to us was that the national surveys were not providing them with any kind of even guestimates of what was happening with subgroups, what was happening with geographic areas, so that was one of the motivations behind doing the State and local surveys. Finally, that they needed the kind of technical assistance and wisdom from the national survey folks to help them do work on the local area.

I think the bill, H.R. 4684, really speaks to all those kinds of issues that they raised at that meeting and speaks to the concerns that they had. I see it as very complementary, the relationship between the two aspects of this bill, the State and local emphasis and the national network emphasis. I see it as increasing that complementarity and discussion between levels of government.

Dr. **Heimendinger**. I would like to just further comment on that in the sense of a system that we do have in existence that is perhaps an example of how this might work which is the CDC surveillance system which operates in a number of States, 26 to 29 at this point, for pediatric surveillance, and Rhode Island participates in that. Let me just give you a brief description about the complementarity. It has its drawbacks, to some extent, in terms of what kinds of statements you can make broadly about the population and the country from that information, because different groups within different States participate, but nevertheless, let me give you an idea about how it is useful at different levels.

Data are collected in the clinics, in individual clinics within a State and get funneled, oftentimes in my case, through the State health department which then goes to CDC for analysis and tables are sent back to the States. What the State does with that in most cases is redistribute that information to the clinics. So, what is happening here is that the clinics get specific information which is useful to them, although the time delay to some extent is not as good as we would like to have it, nevertheless, they now have a checklist of children who are at risk. So, that is useful back at the clinic level.

At the State level, you now have a series of clinics in the State who may be all WIC [Women, Infants, and Children program] clinics or who may be EPSDT [Early and Periodic Screening, Diagnosis and Training program], a whole series of different programs that may be reporting. So, at the State level, you now have some concept of the number of children who may be at risk for either growth problems or anemia.

Then, at the national level, CDC has a look across, at least, a number of States in terms of what the situation may be. That system is useful at that whole series of levels which I think is an example of what might be done.

Mr. **Walgren**. Thank you, Mr.Chairman.

Mr. **Brown**. Mr. MacKay?

Mr. **MacKay**. Thank you, Mr. Chairman.

Dr. Nesheim, I have been looking at your testimony, specifically pages 3 and 4 of your statement, where you talk about the existing system. What bothers me, as a person who now is in his second year of looking at this problem, I understand that other members of these two committees have been looking at it for these 6 years, is that nothing seems to get done and yet there seems to be a resistance to anyone suggesting that perhaps it could be organized in a way that something can be done.

Is it your experience just in the past year that we have made progress on this or that we are not making progress?

Dr. **Nesheim**. I haven't seen very much evidence that we have moved ahead very rapidly in the past year, no. I think that the comments that we are in fact delaying the next cycle on the HANES survey, that we are delaying efforts on the integration of the Food Consumption Survey with HANES are certainly the perception of everyone who seems to be dealing with this particular system. We are not moving ahead as we envisioned a few years ago when the initial plan for developing a system was put forth.

So, when one talks about an existing system, I really made those comments for two reasons. One is, I don't want to give the impression that we are trying to ask for support for a whole new bureaucratic structure and survey structure and information-gathering structure that doesn't exist now. We have a lot of this information being gathered on surveys that are very important and they have been ongoing efforts of the Federal Government. We have seen evidence, the last few years, that the interest in continuing some of those efforts, even at the level that they have been carried out, has been in fact decreasing. So, I think one really is torn with the idea of saying that we need to have a new system, which I don't think really is the case, because we have tried to point out that we have a lot of things in place and a lot of experience with national surveys and so forth. What we haven't done is coordinate these into an overall picture at the national level where we can deal with nutrition monitoring and surveillance in a way that gives us timely data. I think the whole issue of timeliness of the data is what everyone here has been talking about when it takes 6 years to get data out of any one of these surveys before we can interpret them, it doesn't give us information to deal with actions that are very immediate based upon these surveys.

So, when we talk about things that are in place, yes, there are a lot of things that are in place, but there are a lot of things to be done with those things that are in place.

Mr. **MacKay**. One of the intriguing things about this is the wide variety of areas which are in need of these data. For instance, there is obviously a tie between preventive health care and nutrition for that effort to go forward. The whole development of preventive health care is being hindered by the same lack of data as you are discussing.

It would seem to me that the objection to the bill seems to be centered on the idea that the directorate is too complex a mechanism. Last year, we had a hearing in which there was some confusion among the witnesses as to which of them was the lead agency, which gave an idea of how effectively the existing system was working.

The structure is patterned after the management structure in the acid rain area which seems to be functioning well although it is complex. I noticed you had some hesitancy about making a commitment on this management structure. Do you have an idea, as a person who is experienced in government, as to how we should do it?

Dr. Nesheim. No; I think that is where I was so noncommittal about this whole issue. In talking to people around the country before I put my testimony together, there is no question that there was extraordinary support for this concept of a National Nutrition Monitoring System, that we needed it, that its time had come, let's get on with it and get it done.

Then, however, people would say to me, but boy, have you seen the structure in that bill? It looks like a real bureaucratic nightmare that is being put together to do this. But, then, I sat down when I began to construct my testimony, and I looked at it, and I said, well, I am not quite so sure that is as big a nightmare as it looks, because one is really putting forth all the actors that ought to be involved. It doesn't necessarily give a direction as to exactly the nature of their involvement or whether all of them will in fact choose to be involved, and so forth. So, from that perspective, maybe this body, that is this directorate that is being put together, may in fact not be as cumbersome as it might be.

However, I am not a Federal Government person. I deal in things in academia which are very, sometimes very unclear as well, but I do not really feel I am in a very good position to comment on how this would work on the Federal Government level.

Mr. Brown. Would the gentleman allow me to make a comment?

Mr. MacKay. Sure.

Mr. Brown. It is also modeled in some degree after the structure of the Joint Chiefs of Staff which also doesn't work too well. [Laughter.]

Mr. MacKay. Thank you, Mr. Chairman.

Mr. Brown. Mr. Olin?

Mr. Olin. Thank you, Mr. Chairman.

I apologize for being a little bit late. I didn't hear the first testimony and not much of the second, but the part that I did hear of the others I certainly feel was clear, right to the point, and of course highly supportive of the idea of having an effective nutritional monitoring system. I think you have made the case very well.

I am interested, as the other questioners have been, in the question of the effectiveness of the plan that is laid out here, as to whether it would work better than what we have had before. You have all pointed at what would seem to be obvious benefits of having a directorate that has nothing else to do that is going to do this. It is constructed properly, it has no other task to do, so it is quite likely to get the work done.

On the other hand, that structure is going to be an additional element of the Government. It has to report to somebody, and, I presume, the President. He is pretty busy. So, is it really right that this is more likely to work than really going to work on the lead-agency approach and getting HHS or somebody else to be director in the same fashion, at least have a home for it that has more permanence and maybe better access to the political decisionmakers?

I wonder whether you could comment on that, as to whether the organizational questions here are really what has been holding this back or whether it is more of a problem of attitude toward the problem or acceptance of the problem or something of that nature that this bill doesn't deal with?

Ms. **Parker**. Mr. Olin?

Mr. **Olin**. Ms. Parker.

Ms. **Parker**. In observing this Government and particularly the agencies working on this issue over the last few years, to bring it to the hokey or practical level, they say if it ain't broke, don't fix it, but, vice versa, if it is broke, fix it. I think it is broke.

I think we have tried to deal with the lead agency or the lead agency concept and it hasn't worked.

Mr. **Olin**. Which has been the lead agency?

Ms. **Parker**. Well, that clearly was a question in the last testimony. It has been stated in legislation that the Department of Agriculture was the lead agency in the area of nutrition, and it has also been stated that HHS is the lead agency in different legislation and in hearings and so forth. There is obviously a confusion about that. Still, I think that in itself shows the problem of lead agency, the concept of using a lead agency idea.

In our experience, what you need to get a group of organizations together to do something is, first of all, you need to get them together. I think that this directorate does that. It gets together not just the normal agencies you would think about, the Department of Agriculture and HHS, but also brings together a lot of other agencies who have a vital interest in the kind of information that comes from food consumption and nutritional status data. So, I think bringing in those other faces and those other people helps.

I also think bringing in other people from the divisions within the agencies, like the Agricultural Marketing Service and so forth, and bringing them around the table in this directorate is also helpful in getting people to get together.

The other thing you need besides getting people together is some kind of an engine, some kind of an impetus. For us, it was this hearing. We, of the 27 organizations, got together and talked. We knew we had to come up with a consensus statement, and we did because we wanted to have a voice in this bill. In this sense, this bill is the engine. The congressional mandate is the engine. There really hasn't been anything clear to state that this is an urgent need, that policymakers want the information, that we want it by certain dates, that we want reports. I think that engine helps people focus their efforts toward a goal. And you give the directorate enough flexibility to lay out its own plan. It is not that you are saying do this or do that specifically, but rather, look at these issues and develop a plan which helps solve the problem.

Two other things I think the directorate does that would help solve the problem that we have is the budget issue, how much money goes to this survey or that survey. Those are the kinds of issues that can be worked out when all the players are there and all the folks who want the money for the various kinds of surveys are there to discuss it together in a common plan.

Finally, I think having an advisory council, having the report to the Congress, brings in another piece of the engine that is needed, broadening the groups of people who are watching what is going on, but also broadening the ability of the public and the policymakers to have an impact on what is going on.

All of those pieces seem to me to be a kind of kinetic energy that can move the process forward. That is why—although like anything else, you take a risk—it seems to me a creative solution that deals with the problems that exist in a way that looks like it could have success.

Mr. **Olin**. Do any others of you have any comment?

Dr. **Nesheim**. Could I just make one comment?

One of the problems, of course, with moving ahead with the current system, and what will be a problem as we go ahead, is that some of the nutrition resources in the departments that we are talking about are very, very thin. Some of the National Center for Health Statistics has had an extraordinary loss of staff, as has USDA with some of the nutrition expertise that is needed to carry out some of the things that we are talking about. So, some of the uneasiness that I detected in talking to colleagues within the Federal Government is the fact that there is going to have to be some staff resources, there is going to have to be interaction with this directorate on the part of the people who are also supposed to go out there and get these surveys designed and carry them out and so forth.

One of the features that I saw about the bill in dealing with the directorate was the fact that there were resources put there to help with some staff support to get this done. Whether this is going to be done in the form of a directorate or whether you would do it by organizing it slightly differently in a lead agency, I am not so sure I am prepared to say which one is going to work best, but I do think there needs to be some staff support to make this work.

Mr. **Olin**. I might make one more observation, Mr. Chairman. I don't know much about how the Government works, but I have been in business all my life, and certainly I will agree that the task force approach really is a great idea to get some specific thing done in a big organization. However, if you try to do everything in the business that way, it gets to be too expensive, because everything proliferates. You are doing everything every place. So, in the long run, you need to have some balance.

So, if this were reviewed as a task that had a beginning and an end in the sense that it could be finally melded into a more permanent part of the organization so that you don't duplicate all of the expertise in other departments, so that you don't duplicate all of the work necessarily, keep the focus on while you are getting this monitoring system going, but have the idea that you would turn it over to a more economical way of running it long term. I don't know whether that concept might fit here or not, but it might be an avenue that could be thought about.

Thank you very much, Mr. Chairman.

Mr. **Brown**. Thank you, Mr. Olin.

One of the things that I have hoped for year after year was that the progress of technology would facilitate the development of this national system that we are talking about. I am speaking here particularly of improvements in the technology for monitoring and processing data, and so on, the use of computer and communications systems that would allow networking on a national basis more effectively.

I note that several of you commented that it has been 6 to 10 years since the last HANES survey, and I note that there have been several generations of computer development during that period of time. Do any of you wish to comment as to the possibility that we might be in a better position just through the compulsion of the technology to do a more effective job in monitoring, storing, and processing data and getting it out to the relevant users more effectively as a result of these changes in the technology?

I know the problem isn't a technological problem at this point, and we deal with the organization, but I am just asking you to relate the two if you can.

Dr. NESHEIM. I really can't speak very specifically to exactly why it has taken 6 years, for example, to get all of the data together. Part of it is due to lack of resources in the agencies, certainly, in being able to assemble the data in a way that it can in fact be analyzed and interpreted. That is a real need as it is more than just gathering the data. One has to get the data together. One has to see how reliable it is. One has to then do some interpretation of the data before it is going to be very important. All of that does take some resources.

I think that we are not limited, frankly, in getting the data out on the basis of our hardware resources that are available to do it. I think that the Federal Government every April deals with an enormous amount of data in a very timely fashion, and I think somehow we can use that technology for other purposes, too.

Mr. BROWN. You are correct. The IRS does probably have a good computer system. On the other hand, Social Security has a lousy system, and INS has a lousy system. You can go down the road and one of the key recommendations of the Grace Commission which studied this problem governmentwide was that we could save some several billion dollars by upgrading our computer systems, our data processing systems. I know the Department of Agriculture is concerned about and working on that, and I presume HHS is also.

In a sense, having a computer system and a compatible series of programs might drive the overall operation to more timely results than it is getting at the present time.

Well, I don't want to belabor this. There is one other question I want to take up. I was really struck by the charts that you produced, Dr. Alcantara, having to do with daily calcium intake and the striking difference between males and females. Of course, you haven't shown the incidence of osteoporosis on here, but that obviously is a very serious public health problem which one of you, maybe you, indicated was costing the Nation several billion dollars a year. I had almost thought that that was a peculiarly female disease. Now, I see that it is related to calcium intake which is a dietary problem.

How do we explain that?

Dr. ALCANTARA. At a recent consensus development conference that was sponsored by the National Institutes of Health this past April, they looked at the various factors that are related to an increased risk of osteoporosis, and one of the factors that was pointed out at this consensus conference was the adequacy of dietary calcium intake. There are, of course, other factors involved, but they pointed out that calcium could be one of the factors that might help reduce the risk of the public health problem of osteoporosis.

Mr. BROWN. Well, I am not an expert on osteoporosis, but it obviously is a problem of the bones, the tendency to break or fracture, generally associated with old age, but I guess it is a matter which—well, I won't belabor my ignorance here. The point I am really trying to make is that if it is a problem related to calcium intake, it might have a fairly simple solution in one sense, that is, a substantial education program that those who are at risk ought to drink more milk or do something relatively simple to improve their calcium intake. That is the whole purpose of this nutritional and dietary information, it seems to me, is to identify problems of that sort and to initiate a program of education which will help to correct it.

We might find the same situation for anemia and for any number of other kinds of problems which would allow us to tremendously enhance the health of the American people if we will just have sense enough to do it.

Dr. ALCANTARA. I think this is one of the values in the national nutrition surveys, and that is to point out potential problem areas so that the right policy and programs can then be put in place so these problems would then be addressed.

Mr. BROWN. If we could save, in terms of total public health costs on one disease like osteoporosis, if we could cut it in half and save a couple billion dollars, it is almost staggering to contemplate what we could do in a comprehensive program that would be aimed at an adequate program of public health nutrition. It would almost pay for the program, wouldn't it?

I have no further questions at this point. I want to thank the panel very much for their extremely helpful information and guidance. You haven't solved our problem about what to do about the resistance of the administration on this, but I think you have helped enhance our understanding of what needs to be done a great deal.

Thank you very much.

Next, we are going to call a panel of the government witnesses, Dr. Brandt from HHS, Dr. Bentley from Agriculture, Isabel Wolf from Agriculture, and General Rapmund from the Department of the Army who I presume will speak for the Defense Department.

It is certainly a pleasure to see all of you distinguished people again this morning. Dr. Brandt, I was beginning to think that I would never see you again. It has been several months. I see Dr. Bentley all the time, of course.

Dr. BRANDT. Well, I am sorry to disappoint you, but I am back.

Mr. BROWN. Now, needless to say, despite my high regard and admiration for all of you gentlemen, I am disappointed—and lady, excuse me—I am disappointed in your reaction to this creative piece of legislation that was produced here. I am also disappointed that we haven't achieved much better results in establishing our national nutrition monitoring program, and you are going to explain to me why I am wrong to be disappointed.

Dr. Brandt, as soon as the reporter is back and gets her machine in order, we will allow you to proceed, and I am grateful that you could be here this morning. I know that you are burdened by a lot of this, as are the rest of the witnesses, and we apologize for that burden.

Dr. Brandt, you may proceed.

STATEMENT OF DR. EDWARD N. BRANDT, Jr., ASSISTANT SECRETARY FOR HEALTH, DEPARTMENT OF HEALTH AND HUMAN SERVICES

Dr. BRANDT. Thank you, Mr. Chairman. I do appreciate the opportunity to review with you the status of the Department of Health and Human Services' nutrition monitoring and research activities and to comment on the National Nutrition Monitoring and Related Research Act of 1984. I have with me a number of individuals from the Public Health Service who are closely associated with these departmental activities.

We have a responsibility for a wide array of human nutrition monitoring and research activities. Last year, I concentrated in my testimony on research planning and coordination. Today, I would like to provide a status report on nutrition monitoring, the Clinical Nutrition Research Units, the Human Nutrition Research and Information Management System, and the Federal Human Nutrition Research Plan.

With the Department of Agriculture, the Department of Health and Human Services participates in the National Nutrition Monitoring System. Our activities fall into the five categories that are outlined in the testimony. Four public health agencies are responsible for a wide range of survey and research activities under each of these categories. I have discussed those in some detail in the full written testimony.

Mr. BROWN. The full testimony will appear in the record.

Dr. BRANDT. Thank you, sir.

At the heart of the National Nutrition Monitoring System is the National Health and Nutrition Examination Survey conducted by the National Center for Health Statistics, along with the Department of Agriculture's Nationwide Food Consumption Survey. To incorporate those two into a truly operational national nutrition monitoring system, steps have been taken to integrate better the two surveys and to establish a system for evaluating and reporting on the dietary and nutritional status of the U.S. population.

We have undertaken three joint activities: first, the Data User's Conference; second, the Joint Nutrition Monitoring Evaluation Committee; and third, a coordination committee to coordinate the two national surveys.

FDA has significant responsibilities for components of the National Nutrition Monitoring System including the Total Diet Study which now has been revised to improve efforts to monitor the levels of selected nutrients and toxic substances in representative diets of eight population groups in the United States. Second, a special survey of sodium labeling, and third, a program to track public awareness via its annual consumer survey. Finally, studies of improved nutrient bases.

The Centers for Disease Control contribute to the National Nutrition Monitoring System through the coordinated State Surveillance System. They have, in addition, included a report on the scientific evidence on infant feeding, which will be published this fall as a supplement to a scientific journal; second, the Pediatric Nutrition Surveillance System in 33 States and the District of Columbia to monitor low income populations.

The science base for nutrition monitoring system activities, in terms both of the assessment of nutritional status and the interpretation of dietary data is drawn from studies on nutritional status assessment and epidemiologic investigations. Methods to refine the assessment of dietary recall are of interest to many scientists, and on June 7th and 8th of this year, the National Cancer Institute held a workshop to establish how the dietary assessment questionnaire can be improved as an effective and efficient instrument.

Epidemiological research examines the role of food habits and the socioeconomic factors that influence food selection in health and disease conditions. Again, there are five basic categories of studies, all of which are outlined in the testimony.

In summary, we are working closely with USDA to improve the comparability of the two surveys that form the core of the National Nutrition Monitoring System and, in addition, the other programs that I have outlined. Clinical Nutrition Research Units, since 1979, the National Institutes of Health has supported a national program in clinical nutrition based in Clinical Nutrition Research Units. The establishment of seven of these units by the NIH was a creative and imaginative response to a long-standing need to bring clinical nutrition into the mainstream of medical research and practice. We have highlighted a number of their activities in the testimony. NIH is currently in the process of issuing a new request for applications for additional Clinical Nutrition Research Units.

The Human Nutrition Research and Information Management System mandated by the Congress in December 1982, was complete in April of this year and is now fully operational. It consists of a data base that presently contains information on 3,821 federally supported human nutrition research projects. Data available include the name, organization, and address, title of the research, and so forth with 34 classification codes permitting identification of the principal areas of research addressed by the investigator. It is based in an interactive, on-line inquiry computer program which permits query of the data base and preparation on-line.

The Department of Health and Human Services and the Agriculture Department have worked together to establish an Interagency Committee on Human Nutrition Research which is cochaired by my colleague, Dr. Bentley, and myself. It includes representatives from eight agencies. Progress to date includes initiation of the process to develop a 5-year research plan for Federal involvement in human nutrition research, including the identification of priority areas of human nutrition research. In addition, we will sponsor a conference of federally supported nutrition research centers which is tentatively scheduled for January 14 and 15, 1985.

I would like to turn now to a discussion of H.R. 4684, which proposes a series of organizational structures and mechanisms to oversee nutrition monitoring and research. Clearly, I support the goal of improved nutrition monitoring and research, but I am concerned about the administrative structure contained in the bill and about the direction of some aspects of it.

I fully agree that the timeliness of data release from our surveys should be improved, that nutrition survey planning should be coordinated with the Department of Agriculture and other agencies where appropriate, that the data bases that support these surveys need to be expanded, that the research base must be improved, and Federal and State activities should be coordinated. I have stated today some of the steps that we are taking to accomplish these objectives.

In my view, the administrative structure proposed in this bill is cumbersome and would not facilitate the stated goals. I, therefore, am of the opinion that the management of the national nutrition monitoring system should remain the responsibility of the HHS Assistant Secretary for Health and the USDA Assistant Secretary for Food and Consumer Services.

In conclusion, Mr. Chairman, I think we have made progress in implementing the National Nutrition Monitoring System and in developing human nutrition research plans. I remain committed to the goals of H.R. 4684 and will work to see that human nutrition monitoring and research remain high priorities within the Department and that activities are coordinated to the fullest extent possible with the Department of Agriculture.

Thank you very much.

[The prepared statement of Dr. Brandt follows:]

STATEMENT BY EDWARD N. BRANDT, JR., M.D., PH.D., ASSISTANT SECRETARY FOR HEALTH, DEPARTMENT OF HEALTH AND HUMAN SERVICES

MR. CHAIRMAN AND MEMBERS OF THE SUBCOMMITTEE:

I appreciate this opportunity to review with you the status of the Department's nutrition monitoring and research activities, and to comment on the National Nutrition Monitoring and Related Research Act of 1984, H.R. 4684. Accompanying me today are individuals closely associated with these departmental activities who I would like to introduce to you. They are Dr. Michael McGinnis, Deputy Assistant Secretary for Health; Dr. Artemis Simopoulos, National Institutes of Health (NIH), Dr. Manning Feinleib, Director, National Center for Health Statistics (NCHS), Dr. Sanford A. Miller, Director, Center for Food Safety and Applied Nutrition, Food and Drug Administration (FDA), and Dr. Frederick L. Trowbridge, Director, Division of Nutrition, Centers for Disease Control (CDC).

The Department of Health and Human Services has responsibility for a wide array of human nutrition monitoring and research activities. Last year, my testimony concentrated on research planning and coordination. Today my testimony will provide a status report on nutrition monitoring, the Clinical Nutrition Research Units, the Human Nutrition Research and Information Management System, and the Federal human nutrition research plan. I will end with some comments about H.R. 4684.

NUTRITION MONITORING

Together with the Department of Agriculture (USDA), the Department of Health and Human Services (DHHS) participates in the National Nutrition Monitoring System (NNMS). Our activities fall into five categories: health status measurements, food consumption measurements, food composition measurements, dietary knowledge and attitudes assessments, and research in support of nutrition monitoring. Four Public

Health Service agencies are responsible for a wide range of survey and research activities under these five categories. I will discuss each category below providing highlights of the agencies' accomplishments over the past year.

At the heart of the NNMS is the National Health and Nutrition Examination Survey (NHANES) conducted by the National Center for Health Statistics. With USDA's Nationwide Food Consumption Survey (NFCS), NHANES forms the cornerstone of the Federal nutrition monitoring system. NHANES consists of a series of surveys of representative samples of the U.S. population. The surveys include health histories, physical examinations, laboratory measurements, and a dietary interview. Analyses of the resulting data provide assessments of the health and nutritional status of the U.S. population. Two surveys have been completed -- NHANES I (1971-74) and NHANES II (1976-1980). A special survey of the health and nutritional status of Hispanics (called Hispanic HANES) is now in the field, and data collection will be completed by December, 1984. We expect to release the first data tapes for analysis on the Mexican-American sample of the survey this fall.

To incorporate NHANEs and NFCS into a truly operational national nutrition monitoring system, steps have been taken to integrate better the two surveys and to establish a system for evaluating and reporting on the dietary and nutritional status of the U.S. population. Working toward better integration of the surveys, DHHS and USDA have undertaken three joint activities. Highlights of their activities include:

o The NFCS/NHANES Data Users' Conference. NCHS and USDA's Human Nutrition Information Service requested that the Food and Nutrition Board of the National Academy of Sciences review the dietary portions of NHANES and

NFCS. The Academy held a planning workshop in June of 1983 and a data users conference in October to obtain information on the data needs of users of NHANES and NFCS survey data, and also to compile a thorough list of uses of the data. The Academy's report, including specific recommendations to improve comparability of the dietary portions of the two surveys is due later this month.

- The Joint Nutrition Monitoring Evaluation Committee (JNMEC). This Committee was established to evaluate the findings of NFCS, NHANES, and other Federal nutrition monitoring efforts and to report to Congress every three years on the nutritional status of the U.S. population. The Committee has met four times since its first meeting in December 1983. The contents of its first report have been outlined, and we have supplied the requested data. The Committee and staff assigned to assist it are planning to submit the first report for Departmental review in August, and every attempt is being made to submit the report to Congress this winter. Despite the original delay in obtaining approval for the JNMEC, I am pleased with the progress made so far.

- The Nationwide Food Consumption Survey (NFCS), National Health and Nutrition Examination Survey (NHANES) Coordination Committee. This is an interdepartmental committee charged with coordinating the content of these national surveys and designing future surveys with compatible designs and definitions. This committee has acted on recommendations made last year by a committee of statisticians to improve comparability between the surveys. USDA has begun planning its Continuing Survey of Food Intakes of Individuals, and preliminary planning has been started for the next

NHANES. Staff of both surveys have worked together to review questionnaires for the 24-hour recall common to both to insure comparability. NHANES will use the same food composition data base and food codes as are used by NFCS, and will present results consistently when possible to enable easy comparisons of findings. Plans are also being discussed to fund jointly the development and testing of a computer assisted dietary interview that would be used by NHANES in its mobile examination centers, and by NFCS in its telephone follow-up of respondents in its Continuing Survey.

o Plans for NHANES III. The President's FY 1985 budget was based on the assumption that the next NHANES would be conducted in 1988. In view of the resource constraints present throughout the Federal Government, we did not believe that it was possible to provide the increased funds necessary for startup of planning for NHANES III without diverting resources from the analysis of previous NHANES and the Hispanic HANES which we believe to be a priority. It has been our view that a one year delay of NHANES III would not significantly reduce the availability of data in the National Nutrition Monitoring System, since additional planning time could be devoted to improving survey methods that would result in more timely production of data. In addition, we believed that the one year delay would profitably be used to automate the data collection and processing phases of the next NHANES, a plan that would lead to faster analysis and release of survey findings.

However, in view of concerns that have been voiced from a variety of quarters, including these Committees, we are reconsidering this decision and are attempting to find resources that would make it possible for the National Center for Health Statistics (NCHS) to begin the next NHANES in 1987 as previously scheduled. This would permit the survey to be coordinated with the Nationwide Food Consumption Survey being planned for that year. In developing our plans, I have asked NCHS to pay particular attention to the problem of maintaining the analytic effort on existing NHANES and HHANES data; automation of future surveys to shorten the time between data collection and release of final results; implementation of the relevant portions of the five-year research plan to improve the monitoring functions of the NHANES program; and improvements in the ability of the survey to monitor trends.

The Food and Drug Administration (FDA) has cooperated extensively with NCHS to accelerate the analysis and interpretation of NHANES data. Through a contract with the Federation of American Societies for Experimental Biology (FASEB), FDA funded an expert scientific working group to review the NHANES II data on iron, folate, and zinc nutritional status. Final reports are expected later this year which will aid FDA in reviewing current food fortification policies. FDA and NCHS entered into an interagency agreement to support analyses of the data collected in NHANES I and NHANES II related to vitamin A status and osteoporosis, and FDA is funding the determination of ferritin in Hispanic HANES.

FDA has significant responsibilities for other components of the NNMS. These efforts include:

- Revision of the Total Diet Study. In April, 1982, changes were made in the Total Diet Study to improve efforts to monitor the levels of selected

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nutrients and toxic substances in representative diets of eight population groups in the U.S. Work has been completed that allows for a comparison of data between previous and revised Total Diet Studies. The results indicate that data from the old and new studies can be used together validly to track changes in nutrient intake over prolonged periods of time.

- *Special survey of sodium labeling.* In mid-1983, a special interim survey to the Food Label and Package Survey was conducted which showed an accelerating trend in quantitative sodium declarations on food labels, and a continuing high rate of new reduced sodium product introductions. The survey helped to evaluate FDA's predominantly voluntary program to encourage provision of more sodium information and to increase the availability of modified sodium products to consumers wishing to control their sodium intake.

- *Tracking public awareness.* In concert with other efforts, FDA devoted a major portion of its Annual Consumer Survey to tracking public awareness and knowledge of the sodium-hypertension link as well as reported use of reduced sodium products. In late 1983, FDA and the National Heart, Lung, and Blood Institute also employed the Annual Consumer Survey to gather baseline consumer data as a first step in monitoring public knowledge and concern about reducing fat and cholesterol consumption, one of the Department's health promotion goals for the next decade. Future surveys on maternal infant feeding practices and consumer attitudes and practices related to dieting for weight loss are planned.

- Improved nutrient bases. FDA, as part of its mission, contributes to the quality of information in nutrient data bases by developing and improving analytical methods for nutrients. Through an informal working agreement with the National Bureau of Standards, studies are being conducted on the organic nutrient content of several Standard Reference Materials. FDA is also developing methods to determine the bioavailability of iron compounds used for food fortification, and is working with the Association of Official Analytical Chemists to develop and test methods for dietary fiber.

The Centers for Disease Control contribute to the NNMS through the Coordinated State Surveillance System. The system monitors the nutritional status of high risk pediatric and pregnant populations through the collection of measurements such as height, weight, hemoglobin and/or hematocrit gathered from service delivery programs operated by State and metropolitan health jurisdictions. In the past year, some of CDC's accomplishments include:

- Scientific Evidence on Infant Feeding. Chaired by the Director of CDC, the Task Force on the Assessment of the Scientific Evidence relating to Infant Feeding Practices and Infant Health addressed a number of health issues with implications for the United States as well as developing countries. The report will be published this Fall as a supplement to a scientific journal and made available to a wide community here and abroad.

- Monitoring of Low Income Populations. The CDC Pediatric Nutrition Surveillance System has continued with 33 States and the District of Columbia. Pregnancy nutrition surveillance is currently underway in 13 States. Data drawn from the surveillance system were used to provide information to the President's Task Force on Food Assistance. These data continue to serve as important resources to evaluate progress toward the 1990 Objectives in nutrition.

The science base for nutrition monitoring system activities, in terms both of the assessment of nutritional status and the interpretation of dietary data from the system, is drawn from studies on nutritional status assessment and epidemiologic investigations. Research on nutritional status includes investigations to develop and evaluate methods for determining the requirements of nutrients throughout the life cycle as well as studies carried out in both normal and patient populations to examine biochemical, anthropometric, maturational, and functional indices of nutritional status and methods to measure nutrient concentrations in various tissues and plasma and food intake. Methods to refine the assessment of dietary recall of individuals are of interest to many scientists. On June 7th and 8th of this year the National Cancer Institute held a workshop on the "Core Dietary Questionnaire", to establish how the dietary assessment questionnaire to be used in NCI-funded investigations beginning in the Fall of 1984 can be improved as an effective and efficient instrument for the appraisal of "usual diet" in cancer studies.

Epidemiological research in nutrition examines the role of food habits and the socioeconomic factors that influence food selection in health and disease conditions. There are five categories of studies in this area: (1) studies to evaluate methods and procedures used in epidemiological research in nutrition, (2) studies of nutrition's role in physical and psychological development in defined populations, (3) nutrition-related epidemiological studies on maturation and reproductive functions, (4) surveys of nutrient intake and nutritional status assessment of special population groups, and (5) studies on the relationship of food intake and disease.

In summary, we continue to work with USDA to improve comparability of the two surveys that form the core of the National Nutrition Monitoring System. Two Public Health Service agencies -- FDA and NCHS -- have pooled resources to accelerate analysis of NHANEs I and II data. And, the Department continues its commitment to other survey and research activities that contribute to the monitoring system.

CLINICAL NUTRITION RESEARCH UNITS

As you know, since 1979 the National Institutes of Health (NIH) has supported a national program in clinical nutrition based in Clinical Nutrition Research Units (CNRUs). The establishment of seven CNRUs by NIH was a creative and imaginative response to a long-standing need to bring clinical nutrition into the mainstream of medical research and practice. Each CNRU has these seven components: research with human subjects and populations; laboratory investigations; research training; shared facilities and research services; educational programs for medical students, house staff, practicing physicians, and paramedical personnel; nutritional support services; and public information activities.

The Directors of the CNRUs meet annually with NIH staff to facilitate communication, review research findings and problems, and discuss administrative concerns and constraints. On January 9 and 10, 1984, the third annual meeting was hosted by the two CNRUs located in New York, the CNRU at the Columbia University College of Physicians and Surgeons' Institute of Human Nutrition and the CNRU at Memorial Sloan-Kettering Cancer Center/New York Hospital-Cornell University Medical Center/Rockefeller University. In depth presentations of the clinical nutrition research programs of the two host CNRUs, as well as tours of the research facilities, were highlights of the meeting. The presentations featured discussions on biophysics, metabolism and metals, immunology, mass spectrometry, and lipid laboratories. There were also nutrition research highlights, presented by new clinical investigators, on "Calcium and Bone Metabolism in Home Total Parenteral Nutrition Patients" and "The Effect of Beta-Adrenergic Stimulation on Thyroid Hormone Metabolism and Energy Expenditure in Obesity." Also highlighted were research results from a number of pilot studies underway in the following areas: "Nutritional Requirements of the Premature Infant and Infants in Intensive Care Units," "Nutrition and Drug Metabolism in Man," "Treatment of Anorexia in Cancer Patients by Enzyme-Mediated Depletion of Serotonin," and "Magnesium Metabolism and the Renin-Angiotensin-Aldosterone System." Activities of the CNRUs' Nutrition Information Center and the Nutrition Support Service were also presented.

In order to provide participants at the meeting with an overview of ongoing clinical nutrition research programs underway at all seven CNRUs, the directors of the CNRUs at the Medical College of Georgia, the Universities of Alabama, Chicago, and Wisconsin, and Vanderbilt University Medical School also presented highlights of the research activities of their respective CNRU. The next meeting of the Directors of the CNRUs will be held this winter at NIH or at the CNRU at the University of Wisconsin so that the CNRU directors may become better acquainted with the activities of that particular CNRU.

The CNRU program of NIH, now in its fifth year, has been very successful in strengthening a multidisciplinary research program in clinical nutrition and in improving the educational programs in nutrition for medical students and other health professionals in each of the participating institutions. In addition, the

CNRU program has provided support for the training of new clinical investigators in nutrition and for the development of nutrition education materials for patients and the general public.

To date, one CNRU at the University of Alabama has been site visited and approved for continued funding by the NCI Council. By May 1985, the other six CNRUs will have been site visited and their renewal applications reviewed before the Councils of their respective funding Institutes.

NIH is currently in the process of issuing a new Request for Applications for additional CNRUs. The Institutes participating in this announcement are the National Institute on Aging, the National Cancer Institute, and the National Institute of Arthritis, Diabetes, and Digestive and Kidney Diseases. We anticipate that this joint RFA will result in the funding of additional CNRUs in FY 1985.

HUMAN NUTRITION RESEARCH AND INFORMATION MANAGEMENT SYSTEM

The Human Nutrition Research and Information Management (HNRIM) System mandated by the Congress in December 1982 was completed in April of this year and is now fully operational. The system, developed by the USDA-DHHS Task Force on The HNRIM along with the Division of Computer Research and Technology (DCRT) of NIH, operates out of the NIH Nutrition Coordinating Committee (NCC) Office. The USDA-DHHS Task Force on the HNRIM completed its interim progress report on the system in August of last year. This progress report, prepared in response to Section 1427 of the National Agricultural Research, Extension, and Teaching Policy Act of 1977, as amended, detailed the development of the on-line data support capability for the HNRIM system.

The system consists of a data base that presently contains information on 3,821 Federally supported human nutrition research projects. The agencies that have contributed data to the system are: DHHS (NIH,. ADAMHA, FDA, HRSA), USDA, VA, AID, DOD, and Department of Commerce-NOAA. Data available in the system include the name, organization, and address of the principal investigator, title of the research, information on the sponsoring agency and the funding mechanism, a narrative description of the research, and 34 classification codes that permit identification of the principal areas of research addressed by the investigator. An interactive, on-line, inquiry computer program has been designed to query the data base and prepare on-line as well as printed reports in varying detail. This inquiry program has been designed to be "user friendly."

The utilization of the HNRIM system will be monitored by the Task Force so that the system can be modified as necessary to meet user needs. I am pleased to be able to report that those who have had an opportunity to use the system have all expressed great satisfaction with its operation and with the utility of the output.

The Scientific Seminar at the March 1984 meeting of the NIH Nutrition Coordinating Committee featured detailed presentations on the historical development and data components of the HNRIM system. A summary of this seminar was recently published in the June 1984 issue of the "AIN Nutrition Notes" (vol. 20, no. 2), a publication of the American Institute of Nutrition (AIN).

FEDERAL HUMAN NUTRITION RESEARCH PLAN

DHHS and USDA have worked together to establish an Interagency Committee on Human Nutrition Research (ICHNR) co-chaired by Dr. Bentley (USDA Assistant Secretary for

Science and Education) and me. Its purpose is to increase the overall coordination and productivity of Administration research efforts in nutrition and to establish an agenda of research priorities. The Committee includes representatives from eight other agencies: Agency for International Development, Department of Commerce (NOAA), Department of Defense, Federal Trade Commission, National Aeronautics and Space Administration, National Science Foundation, Veterans Administration, and Office of Science and Technology Policy. Since its inception last year the committee has met four times.

Progress to date includes initiation of the process to develop a five year research plan for Federal involvement in human nutrition research including the identification of priority areas of human nutrition research. Each of the eight representative agencies will be involved in developing the priority listing. We have already completed a composite inventory of all activities, and expect to have the five year plans and priorities completed this fall. In addition, we are sponsoring a conference of Federally-supported nutrition research centers tentatively scheduled for next January 14-15. We expect to have all the Directors of Federal human nutrition research centers in attendance.

COMMENTS ON H.R. 4684

I turn now to a discussion of H.R. 4684, which proposes a series of organizational structures and mechanisms to oversee nutrition monitoring and research. While I support the goal of improving nutrition monitoring and research, I am concerned about the administrative structure contained in the bill and about the direction of some aspects of the bill.

I agree that the timeliness of data release from the Department's surveys should be improved, that nutrition survey planning should be coordinated with USDA where appropriate, that the data bases that support the surveys need to be expanded, that the research base must be improved, and that Federal and State activities should be coordinated. My testimony today has stated some of the steps we are taking to accomplish these objectives, and it is my view that additional legislation is not necessary.

The administrative structure proposed in H.R. 4684 is cumbersome, and would not facilitate the stated goals. As specified in the bill, a directorate of 22 members and a council of 15 members would oversee and advise a small executive staff to be housed in my office. A management consortium of four agencies would report to the directorate and would retain the responsibilities they now have for the NNMS. In view of our progress to date in implementing the National Nutrition Monitoring System, I see no need for an additional layer of bureaucracy as proposed in the bill. In the three years since we developed the implementation plan for the NNMS, we have learned where its strengths and weaknesses are. One aspect that has worked well is placing the responsibilities for administering the program in existing lines of authority. I, therefore, conclude that the management of the NNMS should remain the responsibility of the HHS Assistant Secretary for Health and the USDA Assistant Secretary for Food and Consumer Services. Together with USDA, we plan to:

o Develop a five-year monitoring plan with accompanying budget and update it every three years. Included in the plan would be the identified needs of users of nutrition survey data, and a plan to meet those needs.

- Sponsor an ongoing series of conferences of users of dietary and nutrition status data, following the model established last year with the Food and Nutrition Board. Conferences would be held annually, but the topics would change with some years devoted to nutritional assessment issues and others to dietary assessment.

- Expand the membership of the Nutrition Monitoring Evaluation Committee to six to eight members from outside government to provide a more broadly representative group of data users, and establish a mechanism to rotate terms of membership.

CONCLUSION

In conclusion, Mr. Chairman, I think that we have made significant progress in implementing the National Nutrition Monitoring System and developing human nutrition research plans. I do not think that the administrative structure proposed in H.R. 4684 would be conductive to these activities. I remain committed to the goals embodied in the bill, and will work to see that human nutrition monitoring and research remain high priorities within the Department and that activities will be coordinated to the fullest extent possible with USDA.

MY COLLEAGUES AND I WOULD BE HAPPY TO RESPOND TO YOUR QUESTIONS.

Mr. **Brown**. It is always comforting to hear you, Dr. Brandt. Dr. Bentley?

STATEMENT OF DR. ORVILLE G. BENTLEY, ASSISTANT SECRETARY FOR SCIENCE AND EDUCATION, U.S. DEPARTMENT OF AGRICULTURE

Dr. **Bentley**. Thank you, Mr. Chairman and members of the committee. I am pleased to be here to present material from the Department of Agriculture concerning human nutrition. I would ask that the statement I have prepared be submitted and become a part of the record.

Mr. **Brown**. Without objection, it will be made a part of the record.

Dr. **Bentley**. Thank you. I would like to highlight a few items in the report, first, by saying that we are dealing primarily, of course, with research and education programs under extension, but mainly with research. I have organized my presentation around two major parts. The first part has to do with activities in the Department of Agriculture and the various coordinations, especially the coordination and planning functions carried on in the Department, and then our role in the Interagency Committee on Human Nutrition and Research that Dr. Brandt has spoken of earlier. I will just merely touch on that very briefly because he has hit upon the major points.

Let me now turn to a discussion of some of the activities in the Department. In the matter of coordination and interaction concerning human nutrition programs, it has been one that has been addressed in various ways in the Department. Briefly, we have within the Department, a research and education committee—R&E Committee, we call it—that is a part of the Secretary's Policy and Coordinating Council. As a member of that council, I chair a subcommittee or established a subcommittee on human nutrition made up of representatives from eight agencies that indicated an interest in human nutrition research activities. That committee has been very active throughout the year. Under the aegis of that committee, there has been some activity in the Department that really culminated in the development of three reports.

One is a directory of USDA human nutrition activities. Understandably, the diversity of the programs calls for communication being established, and we have prepared a directory, a copy of which we have, and we would hope that along with the other two reports, that they could become a part of the record. [See appendix.] The directory is already being used and is helpful internally and externally. I was pleased to note that there have been requests for 2,000 copies of the publication.

The other statement that has been prepared under the aegis of the committee is really an updating and a restatement of one that has been available in the Department for many years, and that is on the role of USDA in human nutrition. That statement was updated and reviewed and is being circulated within the Department. Finally, the third report is a USDA 5-year human nutrition research plan. This plan was developed through a joint effort involving, again, representatives of many of the agencies concerned with research and under the leadership of Dr. Jerry Combs, who has the position of Assistant Deputy Administrator for Human Nutrition of the national program staff of the Agricultural Research Service. He has had experience in NIH and the land grant universities and has been involved with research work for a long time.

The 5-year plan does outline some major goals in terms of the activity in the Department and then breaks that down into specific objectives. I think it has been a very useful document for communication, but it has its intrinsic value for planning as well.

The next point that I make in the testimony, and I will not review it in detail here, is that there are a number of major personnel changes, appointments of various people to new positions in ARS, in the extension service, and the Cooperative State Research Service. I think all have been helpful and have been important developments throughout the year.

Secretary Block, has established the Human Nutrition Board of Scientific Counselors. There will be 15 members. I think 16 were appointed but one was unable to serve because of other commitments. This committee we look to as a very important one and we will look forward to the first meeting of that group now scheduled for August 9 and 10 of this year.

In addition to the regular research programs that are carried out through ARS—the Agricultural Research Service—and the Nutrition Centers, there are extensive programs in the State Agricultural Experiment Stations. One that I want to call attention to are those projects that are funded under the human nutrition competitive grants program.

I want to point it out for two reasons. First, to indicate the breadth of the programs that have been funded on bioavailability of nutrients, nutrient value of foods, nutritional status, interrelationships of nutrients. The proposals come from a wide range of units, the public and private universities, experiment stations, private industry, laboratories, and so on.

In 1983, there were 164 proposals submitted. There was funding at the level of $2 million which $1.93 million goes for programs. All these projects could not be fully funded. Again, in 1984, while all the grants have not been made, there is a hope that 24 can be made, but we have a great deal more requests and the only way we can try to encourage as many projects as possible—and these actions are taken on recommendation of the panels—is that we will have to reduce funding and shorten the time commitment to the funding program. It is unfortunate that more of these very good projects cannot be funded.

As we are talking about funding, it is appropriate to note and just make a few comments about the USDA funding for fiscal years 1983 and 1984. There has been an increase in the overall budget from $166.8 million to $179.6 million in 1984, or about 6 percent to all of the activities dealing with nutrition programs in the Department. In research, specifically, the ARS has increased the budget for research by 7.6 percent in 1984 over 1983, and the total research budget has gone up approximately 11 percent. So, despite the budget constraints that we are experiencing, we are pleased that we can allot some additional funds to the important responsibility that the Department has for human nutrition research.

In the testimony, I outline the activities of the Nutrition Centers and the progress that is being made at each of these centers in a very brief way. I would just make one comment here that the program at the USDA Human Nutrition Research Center on Aging at Tufts is getting underway. We are in the process of negotiation, a long-term negotiation and a very difficult negotiation, in establishing a GOCO, or Government-owned, contract-operated facility. We expect to have that document signed by October 1 of this year. That has taken considerable time, but there are also a number of very important issues that need to be worked out as we undertake this major joint activity with Tufts University.

I would like to make just one brief comment about the effort we are putting into looking at the relationship of our activities in human nutrition to the agriculturally oriented, that is, food production processing utilization activities in the Department. I think it is appropriate to note here that as the kinds and amounts of food that people eat change, our evaluation of quality changes, and so forth, those have impacts on the system of production, the decision-making concerning production, of plant and animal products for the food chain. So, we are giving attention to this and we are looking at some studies that better define these linkages and how we can use nutrition-oriented information to help us make better decisions on planning research, for production, postharvest areas, the linkages of human needs to the food and agricultural system.

I could go into some more details concerning the interaction of the food and nutrition service, but let me close by reviewing briefly and touching on the points and perhaps, in fact, reiterating and reaffirming the comments that Secretary Brandt made earlier concerning the Interagency Committee on Human Nutrition and Research.

We think this has been a good year for this group, and we have been able to address some questions that are very important to our planning or interagency activities and to the nutrition programs as federally funded. Certainly, the establishment of the Human Nutrition Research Information Management System is a major step. It is operational, and reference has been made to the number of projects that are already listed and the effort, I assure you, on the part of our colleagues was a difficult one. It required a great deal of interaction and discussion and agreement on how programs should be defined and how the entries could be made, how to interlock the system with the USDA, the NIH, and with the other agencies was accomplished through a great deal of effort on their part.

The 5-year plan that was referred to is a topic that is important and has taken a lot of time to develop. We think that is very useful and will be an important guide to us as we think about our total programs and also in setting our priorities. We recognize that each of the agencies involved has its own particular mission and responsibilities, but that this collective and joint effort can help us plan better for the future. There is already evidence of that kind of planning and evidence of the interaction. We think that this will be a major activity for the upcoming year.

Before I close, I would like permission to enter into the record an article that was prepared during the year and published in Nutrition Today early this year. It actually appeared in the November-

December issue of Nutrition Today. The article is entitled "USDA's Commitment to Nutrition in the 80's" and is under the authorship of Secretary John Block.

Mr. **Brown**. Without objection, the article will be made a part of the record. [See appendix.]

Dr. **Bentley**. Thank you. We appreciate the opportunity to review these items in the testimony. We would be pleased to answer questions should there be any from the committee.

[The prepared statement of Dr. Bentley follows:]

STATEMENT OF DR. ORVILLE G. BENTLEY, ASSISTANT SECRETARY, SCIENCE AND EDUCATION, U.S. DEPARTMENT OF AGRICULTURE

Chairman Walgren, Chairman Brown, and members of the Oversight Committee it is a pleasure for me to give you an update on the U.S. Department of Agriculture's activities and future plans for Human Nutrition. There has been a great deal of activity within the Department, and in its interactions with other agencies concerned with research and education programs in Human Nutrition, and I am pleased to have the opportunity to review them with you.

My presentation is organized into two major segments: the first deals with the human nutrition programs and related activities in the Department of Agriculture; and second, the leadership role the Department has had with other agencies under the ageis of the Interagency Committee on Human Nutrition Research (ICHNR).

Coordination and interaction of human nutrition programs among USDA agencies is conducted by the departmental Research and Education Committee (R&E), which I chair as a member of the Secretary's Policy and Coordinating Council. Formed within the Research and Education Committee is the Subcommittee on Human Nutrition which is comprised of representatives from eleven agencies: Agricultural Research Service, Agricultural Marketing Service, the Cooperative

State Research Service, Economic Research Service, Extension Service, Food and Nutrition Service, Food Safety and Inspection Service, Human Nutrition Information Service, National Agricultural Library, Office of Grants and Program Systems and Office of International Cooperation and Development.

The Subcommittee's activities can be summarized through three reports:

1. Directory of USDA Human Nutrition Activities
2. Statement on the Role of USDA in Human Nutrition
3. USDA 5-year Human Nutrition Research Plan

The Subcommittee on Human Nutrition agreed that it would be helpful and appropriate to compile a directory of human nutrition activities for internal use. The purpose of the Directory is really twofold: to have available a compilation of human nutrition activities in the Department of Agriculture, along with a brief description of each; and to identify the responsible program leader and location. The Directory is being used internally, but is also useful to people concerned with Human Nutrition in other agencies of the government, Congressional staffs, experiment stations and universities. Thus far, we have received over 2000 requests for the publication.

In order to provide a comprehensive reference on human nutrition for future projects and programs, the committee has compiled the document, "The Role of USDA in Human Nutrition." It provides valuable background information about USDA's involvement in human nutrition programs and projections for the future.

The most extensive of materials developed by the R&E Subcommittee for Human Nutrition is the 5-year Human Nutrition Research Plan. It is a detailed description of research activities, in order of priority, which will be conducted or supported during the next five years by the Agricultural Research Service, Cooperative State Research Service, Extension Service, Human Nutrition Information Service, Office of International Cooperation and Development and the Office of Grants and Program Systems. This 5-year Human Nutrition Research Plan has been submitted to the Interagency Committee on Human Nutrition Research (ICHNR) and will be used to develop a comprehensive federally-coordinated human nutrition 5-year research plan.

Having given you an update on the work of the R&E Subcommittee for Human Nutrition, I want to report on the key positions that we have filled in the area of human nutrition in the past year.

Dr. Gerald F. Combs was appointed October 1, 1983 to fill the position of assistant deputy administrator for human nutrition, National Program Staff of Agricultural Research Service. He came to us from NIH, where he had served as nutrition program director for the National Institute of Arthritis, Diabetes, and Digestive and Kidney Diseases for the past eight years. He had previously served with USDA in 1971-73, as the first USDA Nutrition and Food Safety Coordinator. Dr. Combs currently coordinates human nutrition research in ARS. In addition, he chairs USDA's R&E Subcommittee for Human Nutrition, acts as executive secretary for the Human Nutrition Board of Scientific Counselors, and serves on the Interagency Committee for Human Nutrition Research.

Dr. Hamish Munro has stepped down as director of the USDA Human Nutrition Research Center on Aging at Tufts University. Dr. Harold Sandstead has since been appointed as Dr. Munro's replacement. Dr. Sandstead brought to this position 18 years of experience, having served as the director of the Grand Forks Human Nutrition Center. Dr. Leslie Klevay, MD has been designated acting director of the Grand Forks Human Nutrition Research Center, pending the recruitment of a director.

Dr. Ava Rodgers is now the deputy administrator for Home Economics and Human Nutrition in the Extension Service and Dr. Mary Heltsley, previously with Iowa State University, has joined us as our home economist and program coordinator for Food and Social Sciences within the Cooperative State Research Service of USDA.

Also, in this past year, Secretary Block has reestablished the Human Nutrition Board of Scientific Counselors (HNBSC), appointing sixteen members. The first meeting of this Board is scheduled for August 9-10. The HNBSC will support the Department in assessing the research conducted at USDA and apprise the Secretary of Agriculture of progress, areas needing more attention, and will identify opportunities for improving the Nation's well-being through human nutrition research.

The Office of Grants and Program Systems (OGPS) is responsible for awarding human nutrition grants for investigator-initiated research projects. The objective of the program is to support basic research that will contribute to our understanding of nutrient requirements; interrelationships; bioavailability; nutritional value of foods; and nutritional status. The program does not consider clinical research nor demonstration/action projects for funding. Qualified scientists from all sectors of the scientific community are eligible to apply. These scientists may come from public or private universities; state agricultural experiment stations; private industries; federal laboratories; and private organizations.

The FY 84 Federal appropriation for the human nutrition grants program was $2 million, the same level as FY 83. Of the $2 million, $1.928 million was available for grants, as the remainder was earmarked for federal administration of the program and for contributions to the Small Business Innovation Research Program. A total of 146 proposals was received from a wide range of institutions after the announcement appeared in the Federal Register. The proposals were mailed to ad hoc reviewers, and then passed on to the Technical Advisory Panel, which then made the funding recommendations. The 12-member panel was able to cover all research areas represented in the proposals.

Although the process of awarding grants has not been completed for FY 84, it is estimated that approximately 24 grants will be awarded. The level of funding, in terms of total dollars and the length of the grant period, is likely to be one-third of that originally requested. This is not because the original requests were unreasonable, but faced with the large number of worthy proposals, the review panel made a difficult decision to stretch the available funds to cover, even partially, as many deserving projects as possible. The research areas covered by the proposals being recommended for funding include trace minerals, lipids (fatty acids and cholesterol), amino acids, vitamins, and dietary fibers. The nutritional status of infants, pregnant women and older populations is also being explored. These projects include "Vitamin A Deficiency in Pregnancy and Fetal Life," "Diet and Bone Mineral Density in Women aged 50-79 Years Old," and "Dietary Fibers and Structure/Functional Correlations of Development in the Neonate Intestine."

It should be noted that USDA's budget for nutrition research increased from $47.8 million in FY 1983 to $53.9 million, or 11.3 percent, in FY 1984. The overall USDA budget for Human Nutrition Education and Information increased from $120 million in FY 1983 to $125.7 million in FY 1984. The total Human Nutrition budget, including research, education, and information for USDA increased from $167.8 million in FY 1983 to $179.6 million in FY 1984, or 6.4 percent. These increases reflect the Department's commitment to improving, through nutrition research, our Nation's knowledge and application of good nutrition practices.

The Agricultural Research Service (ARS) nutrition research budget increased from $31.7 million in FY 1983 to $34.3 million or 7.6 percent in FY 1984. Of this, $30.863 million is being used to support the programs of the ARS nutrition centers.

For example, the USDA Children's Nutrition Research Center at Baylor College of Medicine has made significant progress in initiating research programs on the nutritional needs for growing infants, young children and nursing mothers. This Center has earned a reputation as a leader in human nutrition research through its emphasis on the development and use of non-invasive experimentation methods, involving stable isotopes to measure absorption and use of food components. The current operational budget for the CNRC is approximately $3.25 million for FY 1984.

The building for the USDA Human Nutrition Research Center on Aging at Tufts University, Medford, Massachusetts, was completed in November 1982. This building has 200,000 square feet of space, and is located adjacent to the Health Sciences Campus of Tufts University and the New England Medical Center. Currently, the Center is staffed by 30 scientists and 130 supportive personnel. Its mission is to examine the effect of nutrition on the aging process and to determine the dietary needs of the elderly. The USDA Human Nutrition Research Center on Aging at Tufts is to be operated as a government-owned, contract-operated facility (GOCO). The budget for FY 1984 is approximately $9 million.

The Agricultural Research Service held a Human Nutrition Planning Workshop at Grand Forks, North Dakota in September 1983. The charge of the workshop was to identify needed research appropriate to meet the needs and responsibility of ARS-USDA during the next six to ten years. The participants included senior scientists from each of the USDA-ARS Human Nutrition Research Centers and other

USDA personnel from Agricultural Research Service (ARS), Human Nutrition Information Service (HNIS), Food and Nutrition Service (FNS); personnel from the Department of Health and Human Services (FDA and NIH); Department of the Army (DUA); and scientists from the academic and private sector communities, the food industry and professional organizations.

The recommendations generated at this workshop have been considered in revising the ARS strategic plan for human nutrition research. One of the recommendations from the Grand Forks workshop was the need to develop a better understanding of the impact of the agricultural/food system on human nutrition and identify goals in the system, providing opportunities for improved nutrition.

The application of nutrition knowledge almost always leads to changes in the kinds and amounts of foods people eat, and the demand for certain foods. Similarly, any improvement in the nutritional quality of the foods we eat must involve corresponding changes in the agricultural/food system. The ARS is planning to conduct an evaluation study to identify priorities in research needs for agricultural production and postharvest areas, linking human nutrition needs more closely to the agricultural/food system.

The Beltsville Human Nutrition Research Center's Laboratory on Food Composition continues a major effort directed at the development of accurate and sensitive methods for measuring the nutrient composition of foods. This laboratory maintains very close partnership with the Human Nutrition Information Service (HNIS), which is responsible for the National Nutrient Data Bank and the

National Food Consumption Surveys. All the data generated on food composition by ARS is provided to the HNIS Data Bank, and the ARS scientists advise HNIS regularly as to the best methods for food analyses. It should be pointed out that the Food Composition Laboratory receives support from the National Heart, Lung, and Blood Institute, and the National Cancer Institute, as well as from HNIS and ARS.

Another example of intra-agency collaboration is the effort which the ARS Human Nutrition Centers have made to meet research needs of the Food and Nutrition Service (FNS). The Children's Nutrition Research Center at Baylor and the USDA Western Human Nutrition Research Center in San Francisco are working with scientists at the Texas Medical Center at Houston and the University of California at Berkeley. Their joint study is directed at improving assessment methods for nutritional status by anthromopometry to measure and evaluate dietary intake.

Further cooperation has been demonstrated in periodic meetings between nutrition Center scientists, ARS program staff and FNS evaluation staff. These joint efforts have improved ARS's understanding of FNS nutrition research needs and have helped pinpoint research areas where ARS may most readily support FNS efforts.

I now want to turn to the second major segment of my presentation; that is, the Department's role in the Interagency Committee on Human Nutrition Research (ICHNR). This committee provides the mechanism for coordinating human nutrition research at the federal level to increase government-wide efficiency in terms of time and money. Dr. Edward Brandt, assistant secretary for health at the Department of Health and Human Services and I co-chair the ICHNR, which has representatives from eight departments of government--U.S. Department of Agriculture, Department of Health and Human Services, Agency for International Development, Department of Energy, National Aeronautical and Space Administration, National Science Foundation, Department of Defense and Veterans Administration.

One of the major activities on the 1984 ICHNR agenda was to encourage cooperation and communication among agencies involved in human nutrition research programs. As a first step, each agency was requested to submit to the ICHNR a 5-year research plan, including priorities as established by the agency's research and planning process. These plans are now being drawn together by the ICHNR as a means for identifying priority thrusts for the federally-funded human nutrition research program by priority areas. This is a challenging task for the Committee but progress made to date suggests these will prove beneficial to those who plan and conduct research in each of the agencies involved. The magnitude of this task is indicated by the fact that there are some 4000 individual research projects now underway. It is anticipated that this report will be reviewed on a continuing basis, and that it will serve as a foundation for developing more specific interagency and interdisciplinary research activities at the federal level.

The ICHNR has also served as a steering committee for establishing the Human Nutrition Research Information Management System (HNRIMS). This system provides a computerized data base capability for recording and distributing information about ongoing federal human nutrition research programs. Before the data base could be compiled, the Committee had to develop and adopt a working definition of and a classification system for human nutrition research. Once a clear-cut definition and criteria had been established, the task of identifying those programs falling within those parameters could then be identified and entered into the data base.

HNRIMS is now operational, accessed through National Institutes of Health computers. To make the system more accessible to USDA, arrangements have been made for a private file service to place the HNRIMS data base online with Dialog. The Dialog system will enable HNRIMS to serve both departmental and state users. An added bonus is that private file access and its use can be closely monitored to determine how possible changes could enhance system use. We can use this computerized data base for guidance in assessing our research projects. Through HNRIMS, we may better target and control our research dollars, avoid costly duplication, and direct funds to areas of greatest need.

Besides formulating a 5-year federal human nutrition research plan and establishing HNRIMS, the Interagency Committee on Human Nutrition Research will sponsor a second "Conference for Federally Supported Human Nutrition Research Centers," in January 1985. The topics to be discussed are: The Use of Stable Isotopes in Human Nutrition Research; and Body Composition Measurements. It is planned that these information exchange meetings be scheduled every other year.

I have appreciated this opportunity to bring before you today what I believe is evidence of much progress on the part of USDA and other government agencies in the area of human nutrition. An outstanding example is the formulation of the Interagency Committee on Human Nutrition Research in formulating a Federal Human Nutrition Research Plan. Hopefully, this coordinated effort will represent increased nutrition knowledge for a better quality of life at less cost to the American people.

I would be happy to respond to your questions.

Mr. Brown. Thank you very much, Dr. Bentley.

Ms. Wolf.

STATEMENT OF ISABEL D. WOLF, ADMINISTRATOR, HUMAN NUTRITION INFORMATION SERVICE, U.S. DEPARTMENT OF AGRICULTURE

Ms. Wolf. Mr. Chairman and members of the committee, thank you for this opportunity to discuss our nutrition monitoring activities of the Department of Agriculture and to comment on H.R. 4684. I am accompanied by Betty Peterkin, Associate Administrator of the Human Nutrition Information Service. She has a long experience with Federal nutrition surveys.

I would also like to discuss with you a mechanism for management and oversight of the National Nutrition Monitoring System that is currently in use in the Department of Agriculture and the Department of Health and Human Services. My supplemental statement, submitted for the record, covers these items in more detail, and gives a summary of our research on food composition and nutrition guidance and education.

Mr. Brown. That will be made a part of the record with your statement.

Ms. Wolf. Thank you.

The Department remains committed to the National Nutrition Monitoring System as outlined in the USDA/DHHS Joint Implementation Plan submitted to Congress in 1981. This plan covers major monitoring activities through 1987. Our testimony to you last year described several of these activities that were underway. A progress report is in order. Much of this work is conducted jointly with DHHS.

The purposes and procedures of USDA's Nationwide Food Consumption Survey and the Department of Health and Human Services NHANES survey were reviewed by a committee of statisticians and sampling experts. The committee's recommendations for greater comparability of the surveys are being implemented.

A dietary data users conference was conducted by the Food and Nutrition Board of the National Academy of Sciences under a USDA/DHHS grant in 1983. A FNB report identifying priority uses of dietary data and new and more effective means of obtaining needed data is due later this month.

The USDA/DHHS Joint Nutrition Monitoring Evaluation Committee, called for in the Joint Implementation Plan, was convened. Their first report to Congress on the nutritional status of the population is well underway and can be expected later this year.

Standards for use in appraising nutrient intakes from surveys are being studied by an FNB-appointed commission of nutrition experts. This report will be completed in March 1985.

The Department of Agriculture conducted two large methodology surveys to develop procedures for collecting food intakes from the same people several times a year. These studies are identifying the best procedures for the new continuing survey of food intakes of individuals to be initiated in 1985.

The request for proposal for this continuing survey has been advertised. The proposed survey covers 2 years, 1985 and 1986, and two samples of households, all incomes and low incomes. Fiscal year 1984 and 1985 appropriations will be used for this survey. We will monitor food intakes of a core group, a nationally representative sample of women 19 through 50 years of age and their 1- through 5-year-old children. If the increase requested for fiscal year 1985 is appropriated, the survey will be expanded in 1986 to include a nationally representative sample of women, again, aged 19 to 50 and their 1- through 5-year-old children. Over the year, we will collect up to six 24-hour recalls on food intake from each respondent in order to measure their usual food intake.

The first day's intake will be collected by personal interview. Subsequent contacts will be made by telephone if possible or by personal interview if the respondent has no phone. New and comparable samples of respondents will be selected each year. The data collected will be similar to that collected in the individual intake portion of the Nationwide Food Consumption Survey of 1977-78. However, some new information is planned to reflect the needs expressed in the data users conference, by the Congress, and by the President's Task Force on Food Assistance.

As we launch the continuing survey, we are also making plans for the more comprehensive decennial Nationwide Food Consumption Survey in 1987. In this survey, information on household food use and costs, as well as 3-day intakes of all household members, will be collected. A national sample and a special low-income sample of households will also be surveyed. We expect to computerize part of the interview process in this survey based on developmental work underway. All of the plans for the continuing survey and the Nationwide Food Consumption Survey in 1987 are being made in close cooperation with the NHANES staff.

With respect to H.R. 4684, the Department agrees that national nutrition monitoring is essential but does not support the enactment of H.R. 4684 for several reasons.

First. We are committed to implementation of the National Nutrition Monitoring System as outlined in the 1981 Joint Implementation Plan. We believe that our planned sequential and systematic monitoring efforts, closely coordinated with the Department of Health and Human Services' efforts, will provide necessary information.

Second. The national nutritonal status network proposed in the bill may not be helpful to States and local areas who often have different data needs. Even with extensive national guidelines, State and local studies would probably differ in many ways, such as sample selection and quality control. This would make the compilation and comparison of results from their surveys unsound.

Third. The proposed system of grant awards through the National Science Foundation, we believe, would needlessly involve that agency in activities that may be outside its present mission. If needed, such a program could be conducted more easily by USDA and DHHS, both of which administer similar programs.

Fourth. The requirement that a directorate be established and a comprehensive monitoring plan developed within 6 months is unrealistic.

Fifth. The part of H.R. 4684 that concerns us most is the organizational structure proposed. It includes an executive officer with a staff, a directorate with multidepartmental representation, and a council appointed by the President and Congress. We believe this organization would be extremely cumbersome and would hamper rather than promote the progress of monitoring activity. Moreover, confirmation of the directorate's executive office by the joint chairpersons rather than the Senate, as required in section 106(a), raises constitutional concerns.

In behalf of Assistant Secretary Jarratt, I would like to review with you a mechanism for management and oversight of the National Nutrition Monitoring System that has evolved in USDA and DHHS. This mechanism is based on the experience of the two departments in jointly implementing the system since 1981. We are presently using this mechanism to continue to implement the current monitoring plan and to extend the plan for monitoring activities beyond 1987.

Under our present system, USDA's Assistant Secretary for Food and Consumer Services and DHHS's Assistant Secretary for Health are comanagers of the National Nutrition Monitoring System. They are developing a 5-year plan, considering the monitoring activities and data needs of their departments, the Department of Defense, the Environmental Protection Agency, the Bureau of Labor Statistics, and others. They plan to continue to sponsor conferences of users of nutrition survey data and support a nutrition monitoring evaluation committee which will report to Congress at least every 3 years. They are conducting surveys and studies of methods and standards for nutritional surveys and advising State and local groups on dietary and health and nutrition examination surveys. They will continue to report to Congress annually. The two departments will provide staff and funding to implement the monitoring plan through the budget and appropriations process.

Assistant Secretary Brandt and Assistant Secretary Jarratt believe that this mechanism will be both efficient and flexible. They believe it offers the best prospect for providing necessary information on the nutritional status of the population in a timely manner and request that it be considered as an alternate to the organizational structure proposed in H.R. 4684.

Thank you.

[The prepared statement of Ms. Wolf follows:]

STATEMENT OF ISABEL D. WOLF, ADMINISTRATOR, HUMAN NUTRITION INFORMATION SERVICE, U.S. DEPARTMENT OF AGRICULTURE

Mr. Chairman and Members of the Committee, thank you for this opportunity to discuss our nutrition monitoring activities and to comment on H.R. 4684, the National Nutrition Monitoring and Related Research Act of 1984. I would like also to present to you a mechanism for management and oversight of the National Nutrition Monitoring System (NNMS) that is currently in use in the U.S. Department of Agriculture (USDA) and the Department of Health and Human Services (DHHS). My supplemental statement for the record covers these items in more detail, as well as a summary of our research on food composition and nutrition guidance and education.

The Department remains committed to the NNMS as outlined in the USDA/DHHS Joint Implementation Plan submitted to Congress in 1981. This plan covers major monitoring activities through 1987. Our testimony to you last year described several of these activities that were underway. A progress report is in order. Much of this work is conducted jointly with DHHS.

Purposes and procedures of USDA's Nationwide Food Consumption Survey (NFCS) and DHHS's National Health and Nutrition Examination Survey (NHANES) were reviewed by a committee of statisticians and sampling experts. The committee's recommendations for greater comparability of the surveys are being implemented.

A dietary data users conference was conducted by the Food and Nutrition Board of the National Academy of Sciences (FNB/NAS) under a USDA/DHHS grant in 1983. An FNB report identifying priority uses of dietary data and new and more effective means of obtaining needed data is due later this month.

The USDA/DHHS Joint Nutrition Monitoring Evaluation Committee called for in the Joint Implementation Plan was convened. Their first report to Congress on the nutritional status of the population is well underway and can be expected late this year.

Standards for use in appraising nutrient intakes from surveys are being studied by an FNB-appointed committee of nutrition experts. Their report will be completed in March 1985.

We conducted two large methodology studies to develop procedures for collecting food intakes from the same people several times a year. These studies are identifying the best procedures for the new Continuing Survey of Food Intakes of Individuals (Continuing Survey) to be initiated in 1985.

The Request for Proposal for the Continuing Survey is out. The proposed survey covers 2 years (1985 and 1986) and two samples of households (all incomes and low incomes). Fiscal year 1984 and 1985 appropriations will be used for this survey. We will monitor food intakes of a core group--a nationally representative sample of women 19 through 50 years of age and their 1-through-5-year-old children. If the increase requested for fiscal year 1985 is appropriated, the survey will be expanded in 1986 to include a nationally representative sample of low-income women and their 1-through-5-year-old children. Over a year, we will collect up to six 24-hour recalls of food intake from each respondent in order to measure usual intake. The first day's intake will be collected by personal interview. Subsequent contacts will be made by telephone, if possible, or by personal interview if the respondent has no phone. New and comparable samples of respondents will be selected each year. The data collected will be similar to that collected in the individual intake portion of NFCS 1977-78. However, some new information is planned to reflect needs expressed in the data users conference, by the Congress, and by the President's Task Force on Food Assistance.

As we launch the Continuing Survey, we also are making plans for the more comprehensive decennial NFCS in 1987. In this survey, information on household food use and costs as well as 3-day intakes of all household members will be collected. A national sample and a special low-income sample of households will be surveyed. We expect to computerize part of the interview process in this survey, based on developmental work underway. All of the plans for the Continuing Survey and NFCS 1987 are being made in close cooperation with the NHANES staff.

With respect to H.R. 4684, the Department agrees that national nutrition monitoring is essential but does not support enactment of H.R. 4684 for several reasons:

1. We are committed to implementation of NNMS as outlined in the 1981 Joint Implementation Plan. We believe that our planned sequential and systematic monitoring efforts, closely coordinated with DHHS efforts, will provide necessary information.

2. The national nutritional status network proposed may not be helpful to States and local areas, who often have different data needs. Even with extensive national guidelines, State and local studies would probably differ in many ways, such as sample selection and quality control. This would make the compilation and comparison of results from their surveys unsound.

3. The proposed system of grant awards through the National Science Foundation, we believe, would needlessly involve that agency in activities that are outside its present mission. If needed, such a program could be conducted more easily by USDA and DHHS, both of which administer similar programs.

4. The requirement that a Directorate be established and a comprehensive 10-year monitoring plan developed within 6 months is unrealistic.

5. The part of H.R. 4684 that concerns us most is the organizational structure proposed. It includes an Executive Officer with staff, a Directorate with multi-Departmental representation, and a Council appointed by the President and Congress. We believe this organization would be extremely cumbersome and would hamper rather than promote the progress of monitoring activities. Moreover, confirmation of the Directorate's Executive Office by the joint chairpersons rather than the Senate, as required in Section 106(a), raises constitutional concerns.

In behalf of Assistant Secretary Jarratt, I would like to review with you a mechanism for management and oversight of NNMS that has evolved in USDA and DHHS. This mechanism is based on the experience of the two Departments in jointly implementing the system since 1981. We are presently using this mechanism to continue to implement the current monitoring plan and to extend the plan for monitoring activities beyond 1987.

Under our present system, USDA's Assistant Secretary for Food and Consumer Services and DHHS's Assistant Secretary for Health are co-managers of NNMS. They are developing a 5-year plan, considering the monitoring activities and data needs of their Departments, the Department of Defense, the Environmental Protection Agency, the Bureau of Labor Statistics, and others. They plan to continue to sponsor conferences of users of data and support a Nutrition Monitoring Evaluation Committee which will report to Congress at least every 3 years. They are conducting surveys and studies of methods and standards for nutritional surveys and advising State and local groups on dietary and health and nutrition examination surveys. They will continue to report progress to Congress annually. The two Departments will provide staff and funding to implement the monitoring plan through the budget and appropriations process.

Assistant Secretary Brandt and Assistant Secretary Jarratt believe that this mechanism will be both efficient and flexible. They believe it offers the best prospect for providing necessary information on the nutritional status of the population in a timely manner and request that it be considered as an alternative to the organizational structure proposed in H.R. 4684.

Supplement to Statement by Isabel D. Wolf
June 20, 1984

Within the U.S. Department of Agriculture (USDA), the Human Nutrition Information Service (HNIS) has primary responsibility for the National Nutrition Monitoring System (NNMS) and nutrition guidance and education research. This supplement reviews the status of three HNIS research activities: Nutritional monitoring of the population, the nutrient composition of foods, and factors affecting food practices and preferences. It also outlines USDA's position on H.R. 4684.

HNIS research, specifically mandated in the Food and Agriculture Act of 1977 and the Agriculture and Food Act of 1981, is dependent on or supports other Federal nutrition activities within and outside of USDA. Within the Department, human nutrition research is coordinated through the Subcommittee for Human Nutrition of the Research and Education Committee of the Secretary's Policy and Coordination Council. Cooperation with the Department of Health and Human Services (DHHS) and other Departments in nutrition efforts is established through the Interagency Committee for Human Nutrition Research. Also, Assistant Secretaries Jarratt and Brandt meet regularly to discuss items of concern to nutrition programs they guide in the two Departments.

Nutrition Monitoring

The Department remains committed to the National Nutrition Monitoring System as outlined in the Joint Implementation Plan submitted to Congress by USDA and DHHS in August 1981. This plan covers major monitoring activities through 1987. Last year, testimony was given about several of these activities that were planned or underway. A brief report of progress follows:

1. Purposes and procedures of USDA's Nationwide Food Consumption Survey (NFCS) and DHHS's National Health and Nutrition Examination Survey (NHANES) were reviewed by a committee of statisticians and sampling experts. Several recommendations to promote comparability were made and are being implemented by survey staffs.

2. A study to identify priority uses of NFCS and NHANES data and changes in future surveys that would be expected to lead to new or more effective use of survey results was carried out by the Food and Nutrition Board of the National Academy of Sciences (FNB/NAS) under a USDA/DHHS grant. The final report from the FNB is due by the end of June 1984.

3. An investigation of the degrees of risk associated with intakes of nutrients that fail to meet the Recommended Dietary Allowances is being conducted by the FNB under a grant from HNIS. Such information is necessary for proper interpretation of USDA and DHHS dietary survey results. An FNB-appointed committee of experts has met several times in their effort to help us in establishing these standards. Their report is expected in March 1985.

4. The USDA-DHHS Joint Nutrition Monitoring Evaluation Committee has been convened. Their first report to Congress on the nutritional status of the U.S. population is well underway and will be submitted this fall.

5. Two major methodological studies were conducted to determine procedures to be used in large-scale, continuing surveys of food intakes of individuals:

(a) The first study tested nine alternative procedures for collecting food intakes from an individual for up to 12 days over a year. The analysis of data collected in this study is nearly complete, and the best procedures have been identified.

(b) The second is a pilot study of procedures for collecting food intakes from individuals in selected segments of the low-income population. Phase I data collection from populations differing by race, region, and urbanization is completed. Data are now being collected in Phase II from Mexican-Americans and native Americans and from elderly persons in central cities.

6. Studies funded by HNIS at Pennsylvania State University, the University of Michigan, the University of Maryland, Case Western Reserve University, the University of Wisconsin, the University of Missouri, the University of Arizona, and the University of North Carolina have addressed different aspects of the monitoring system and made recommendations as to its improvements.

These six major activities, carried out over the past several years, have helped us to create a systematic, coordinated national nutrition monitoring system. They have provided the methods research for the continuing survey called for in the implementation plan to begin in 1985. A Request for Proposal for the Continuing Survey of Food Intakes of Individuals (Continuing Survey) is being advertised. Proposals are to be in by mid-July to allow the contract to be negotiated in August.

The statement of work and the questionnaire for the Continuing Survey reflect results from our methodological studies and the consensus of authorities from Government, industry, and academia who attended the FNB conference on priority needs of users of food consumption survey data. USDA and DHHS have worked closely in the development of the questionnaire and plans for data analysis to assure maximum comparability with NHANES. The questionnaire is now being reviewed by data users and survey specialists in Government, industry, and academia.

The Continuing Survey, at its initiation, will monitor food intakes of a core group--a nationally representative sample of women 19-50 years of age at all income levels and all children 1-5 years of age of those women. With the increase requested for fiscal year 1985, we plan to expand the Continuing Survey in 1986 to include a nationally representative sample of low-income women 19-50 years of age and all children 1-5 years of age of those women. In both samples, women with children 1-5 will be oversampled to increase the number of children in the sample.

Information collected and collection procedures for the Continuing Survey will differ from the individual intake part of the 1977-78 NFCS in several ways. Some new information requested by our data users and

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to meet our own data needs more adequately will be collected. While the 1977-78 NFCS collected intakes by a 24-hour recall followed by a 2-day food diary, the Continuing Survey will collect, over a year, up to six 24-hour recalls from each respondent. Each respondent will be contacted personally by the interviewer for an initial 24-hour recall. Subsequent contacts, approximately every 2 months, will be by telephone, if possible, or by personal interview if the respondent has no phone. Expanding to six 24-hour recalls over a year is an attempt to better measure the respondent's usual intake.

Examples of the information to be obtained in the Continuing Survey that was not obtained in the 1977-78 NFCS are:

- Whether or not fat was used in preparing the food eaten and, if so, the type of fat;
- Whether or not salt was used in preparing the food or at the table;
- The form of the food or beverage when it entered the home; i.e., frozen, canned, fresh, etc.;
- The type of container/package the food was in; i.e., metal, foil, glass, plastic, etc.;
- Whether or not the respondent smokes; if so, how much;
- Usual level of physical activity in leisure time and at work;
- Self-evaluation of the adequacy of the household's food and, if inadequate, why.

As the Continuing Survey starts, plans are underway for the more comprehensive decennial NFCS in 1987. Information on household food use and costs as well as 3-day intakes of individual household members will be collected from a national sample and a special sample of low-income households. Computerization of parts of the interview process for the household phase of the survey is anticipated. However, other changes may be made based on the final report from the FNB study and the results of a field test of the household phase of the NFCS that is planned for 1986.

Nutrient Composition of Foods

An essential component of the National Nutrition Monitoring System is information on the nutrient composition of foods. Without adequate food composition data, USDA and others would not be able to evaluate the diets reported for their nutritional quality.

In preparation for the Continuing Survey, the food composition data base used in NFCS 1977-78 is being updated. The new data base is to be completed by November, well before the initiation of the Continuing Survey. The 1977-78 NFCS data base contained values for food energy (Calories) and 14 nutrients. These nutrients were protein, fat, carbohydrate, calcium, iron, magnesium, phosphorus, total vitamin A activity as international units, thiamin, riboflavin, niacin, and vitamins B-6, B-12, and C. Since the 1977-78 data base was developed, the computerized National Nutrient Data Bank maintained by HNIS has become fully operational and has grown considerably. As a result, the 1977-78 data base can be extended to include the following 14 additional nutrients and dietary constituents: Sodium, potassium, zinc, copper, folacin, cholesterol, total saturated, monounsaturated, and polyunsaturated fatty acids, vitamin A as retinol equivalents, carotene as retinol equivalents, alpha-tocopherol equivalents, dietary fiber, and alcohol.

Decisions about the new nutrient data base were made cooperatively with NHANES staff in order that the same food coding system and nutrient data can be used in future NFCS and NHANES.

We continue to expand the National Nutrient Data Bank at approximately 7,000 individual entries per month. This is made possible through our cooperative work with industry and USDA laboratories, as well as our contracts with universities, to generate more complete and reliable information on the nutrient composition of foods. Information on the nutrient composition of foods is released in machine-readable form through the National Technical Information Service and in the publication of Agriculture Handbook No. 8, which is being revised in sections by food group. Ten of the 23 planned sections have been released. The section on pork products was released most recently; the section on vegetables is now at the printer, and several sections are nearing completion. HNIS continues to provide support for and participate in the annual National Nutrient Data Bank Conferences. The ninth Conference is being held the week of June 18-20 in Massachusetts and will provide guidance to users of nutrient data bases and promote cooperation between industry and USDA in development of nutrient data for the National Nutrient Data Bank.

Factors Affecting Food Practices and Preferences

HNIS uses the information from their surveys, the Nutrient Data Bank, and other studies to identify factors that affect what Americans eat and the nutritional quality of diets they choose. These studies help us and others to plan effective food assistance and nutrition education programs.

Our abundant food supply is a major factor affecting the food choices of Americans. Our studies of the nutrient content of per capita food supply estimated each year indicate that food that disappears is generally adequate nutritionally. However, the food supply was no lower in fat in 1982 than 10 years earlier despite some decline in supplies of red meat, milk, and eggs. Increases in the use of fats and oils more than compensate for the decline. Amounts of a few nutrients--such as zinc and folacin--are not available in the food supply in amounts recommended by the National Academy of Sciences. There are no apparent public health problems associated with these shortages. However, several Agricultural Research Service studies focus on these nutrients and the possible effects of marginal intakes. From the surveys, we have identified population segments with diets that are notably short in nutrients and searched for reasons: such as snacking, eating out, use of convenience foods, and resources in time and money.

Nutrition education research that we conduct helps us to know how to present information in ways that will result in improved diets. Results from studies conducted at Stanford were used in the design of the American Red Cross course "Better Eating for Better Health." Our staff has cooperated with the Red Cross for over 3 years in the development of the six-session course, which is being offered by American Red Cross chapters across the country. Evaluations based on over 1,500 participants showed that taking the course improved nutrition knowledge, beliefs, and behavior.

Many people who need food and nutrition information are unable to take advantage of such courses. To help meet the needs of some of these people, the Food and Nutrition Service and HNIS are cooperating in a "Make Your Food Dollars Count" project. The project was initiated in 1983 with regional workshops made up of community leaders. Concepts of the thrifty food plan--the nutritious diet the Department uses as the standard for food stamp benefits--were illustrated and discussed. This year a packet of materials on how to buy and eat better is being prepared for distribution. It includes posters, fact sheets, radio public service announcements, and a slide series. In recognition of the special difficulties of people with limited reading skills, HNIS is conducting a study with the University of Wisconsin to develop and test nutrition education materials for a subset of the low-literacy adult population.

The Dietary Guidelines for Americans, published jointly by USDA and DHHS in 1980, are the core Federal guidance in nutrition for the public. These guidelines are under review by a Dietary Guidelines Advisory Committee established by Secretary Block in February 1983 for a 2-year term. This committee of nine nutrition experts has met three times, reviewed hundreds of comments from the public about the guidelines, and studied the research since 1980 that might affect nutrition guidance to healthy Americans. They will make recommendations about the guidelines to the Secretaries of Agriculture and Health and Human Services in a report expected in December or early in 1985. After the report is ready, USDA and DHHS will decide how they will move ahead with the Committee's recommendations.

H.R. 4684

The Department agrees that a national nutrition monitoring system is necessary and essential to insure that the nutritional needs of the public are satisfied and to provide information to guide the expenditure of public funds for nutrition research and intervention programs. USDA's commitment to monitoring is exemplified by its implementation of the National Nutrition Monitoring System according to the plan submitted to Congress in 1981. USDA believes that these planned sequential and systematic monitoring efforts, which are being closely coordinated with DHHS efforts, will be sufficient to provide necessary monitoring information, especially in light of our attempt to control costs through emphasis on priority research needs. Consequently, USDA does not support enactment of H.R. 4684.

Even though H.R. 4684 may offer some advantages, USDA feels that these advantages are outweighed by the disadvantages of the proposed legislation. Among the disadvantages of the proposed legislation are the following:

The organizational structure, including the Executive Director's staff, the Directorate, and the Council, would be extremely cumbersome. We believe it would hamper the progress of monitoring agencies by adding to their workload and to the clearance process in planning and conducting surveys and other monitoring activities. Also, it would require considerable effort on the part of our relatively small survey staff to brief the members relative to USDA's surveys. In all probability, the layers of managers and advisers would delay the process of certain monitoring activities, for which timing is particularly important.

The requirement that the Directorate have a comprehensive plan within 6 months after enactment of the Act is, in our opinion, unrealistic and unattainable. It is unlikely that the Directorate could even be in place in 6 months.

A national nutritional status network may not be helpful to States and local areas who often have different data needs. Even with extensive national guidelines, State and local studies would probably differ in many ways, such as sample selection and quality controls. This would make aggregation or comparison of results technically unsound.

The proposed system of grant awards through the National Science Foundation would not assure a well-coordinated research plan that focuses on the high-priority needs relative to standards and indicators for the assessment and monitoring of nutritional and dietary status. There appears to be no direct link between the Directorate and their perception of research needs and the National Science Foundation. Furthermore, this activity appears to overlap with the mission of the Western Nutrition Center of the Agricultural Research Service, which is to focus on measurements of nutritional status, and that of the Human Nutrition Information Service, which has and is devoting considerable resources to methodological research on methods and criteria for measurement of dietary status.

Proposed NNMS Management System

Although USDA and DHHS oppose the organizational structure in H.R. 4684, they recognize the need for a mechanism for the management and oversight of the National Nutrition Monitoring System. Such a mechanism has evolved as a result of cooperation in the two Departments since 1981.

The purposes of the management/oversight mechanism are: (1) To continue to implement the current NNMS as a means of furthering its stated goals and (2) to extend monitoring activities as necessary to provide the scientific basis for the maintenance and improvement of the nutritional status of the U.S. population and the nutritional quality of the U.S. food supply.

Assistant Secretary Brandt and Assistant Secretary Jarratt would like to propose this mechanism as an alternative to the one proposed in H.R. 4684.

Mr. Brown. Thank you, Ms. Wolf.

General Rapmund, we are very pleased to have you here.

STATEMENT OF MAJ. GEN. GARRISON RAPMUND, ASSISTANT SURGEON GENERAL FOR RESEARCH AND DEVELOPMENT, DEPARTMENT OF THE ARMY

General Rapmund. Mr. Chairman and members of the committee, I am the Assistant Surgeon General for Research and Development in the Department of the Army. The Department of the Army has been designated as the representative of the Department of Defense for this legislation, and I represent the Department of the Army for that purpose. I have some brief remarks which will highlight key points contained in my prepared statement which I have already submitted to you and do ask that it be made part of the record.

Mr. Brown. Without objection, it will be.

General Rapmund. Thank you, sir.

Mr. Chairman, I am pleased to have the opportunity to provide a brief review of the past and present activities of the Department of Defense in the area of human nutrition research and monitoring. The military has a distinguished record in advancing the science of human nutrition that dates back to World War I when a Nutrition Division was established in the Office of the Surgeon General for the purposes of safeguarding the nutritional interests of the Army.

With the outbreak of World War II, the nutrition research laboratory was established at the Army Medical School at Washington, DC. The Nutrition Research Program was further expanded and moved to improved facilities in Chicago in 1944, to Denver in 1953, and finally to the Letterman Army Institute of Research in San Francisco in 1974.

For a period of more than 35 years, the Army Nutrition Research Program was recognized as a national and international resource advancing the scientific knowledge base, not only in military nutrition, but in human nutrition in general. Additional major contributions included development of anthropometric, biochemical, and clinical examination methodologies to assess the nutritional health status of military and civilian populations. Additional achievements include development of nutritional standards for garrison and combat rations that have assured essentially each and every service member the opportunity to consume a nutritionally adequate and wholesome diet.

Now, Mr. Chairman, I would like to focus my remarks on future plans for military nutrition research. Future conflicts may require wide dispersion, rapid deployment, and high mobility of military forces. Due to these projected changes, the conventional combat feeding system which requires cooks to prepare hot meals in field kitchens from raw ingredients may no longer be possible. Instead, troops will likely be fed with rations or food packets with the lowest possible weight and volume requiring no preparation to be eaten other than possibly rehydration and warming.

We know from the older literature that nutritional factors can play an important role in enhancing and sustaining military performance. However, we are also aware of large gaps in the existing nutrition and military performance data base which prevent us from satisfactorily answering such complex questions as, how long can troops be fed packaged rations as the sole source of subsistence without adverse effect on military performance, and, what is the effect of inadequate energy or fluid intakes on the ability of troops to perform military tasks?

Prior to making a decision to reestablish a military nutrition research program, we contracted with the National Academy of Sciences for advisory assistance. In 1982, the Food and Nutrition Board of the National Research Council established a Committee on Military Nutrition Research.

Mr. Chairman, I would like to highlight two items from the fiscal year 1983 annual report of the committee. The committee noted that there was an urgent need to establish cognitive performance test procedures that are not only sensitive to nutritional variables, but that are also reliable and valid predictors of military task performance. Last week, the committee hosted a workshop on cognitive testing methodologies for military nutrition research which will be very helpful in focusing the direction of our research efforts in that important area.

The committee also recommended that there was a need to assemble the data base on the relationship of energy and fluid deficits to cognitive, psychomotor, and physiological performance and to try to develop a computer model to predict the effects of these deficits on performance. The committee will be addressing that aspect during an additional workshop this October.

I am pleased to announce that a military nutrition research component is being established at the U.S. Army Research Institute of Environmental Medicine at Natick, MA. The mission of the group will be specifically directed to nutritional aspects of field feeding troops in the future and the critical end point of the research will be the effective performance of cognitive, psychomotor, and physical tasks under sustained operations in all environmental extremes.

Through the mechanism of existing memorandum of understanding between the Department of Defense and the Department of Agriculture, every effort will be made to exploit opportunities for collaborative nutrition research between DOD and USDA laboratories and to avoid duplication of effort.

In the process of developing long-range plans for the new military nutrition research program, it has been most helpful for DOD to participate as a member of the Interagency Committee on Human Nutrition Research. We have actually participated with our sister agencies in the preliminary stages of developing a Federal human nutrition research plan. We are optimistic that the Human Nutrition Research and Information Management System will be a useful tool to rapidly obtain information about ongoing nutrition research studies being supported across the Federal Government.

In regard to H.R. 4684, the Department of Defense defers to the Department of Health and Human Services and the Department of Agriculture on the need for a national nutrition monitoring system. We are concerned, however, that the administrative structure proposed by H.R. 4684 may be excessively cumbersome to achieve the desired objectives. We also do not support the proposal to have the Secretary of Defense serve as the cochair for the Directorate for Human Nutrition Monitoring and Related Research. Nutrition monitoring is primarily a responsibility of the Department of Health and Human Services and the Department of Agriculture, and it is most appropriate for representatives of those two key agencies to comanage the National Nutrition Monitoring System. However, the Department of Defense is quite receptive to providing qualified representatives to serve on the interagency committees and task forces when appropriate.

Although the Department of Defense does not support enactment of H.R. 4684, it is interested in maintaining close liaison with those agencies responsible for the National Nutrition Monitoring System. Benefits to DOD would include the opportunity to integrate selective military populations, as appropriate, into the survey design. In addition, there may be opportunities to cross train selected DOD health professionals in nutritional monitoring procedures. Many of the currently used clinical, biochemical, and dietary techniques for nutritional assessment of populations in a field setting are the product of previous military nutrition research investment. We are hopeful that our planned military nutrition research program to develop standardized methods to assess the effects of nutrition on cognitive and psychomotor function will also provide spinoff technologies to the National Nutrition Monitoring System.

Mr. Chairman, I have appreciated this opportunity to appear before the committee and I will be happy to answer any questions.

[The prepared statement of General Rapmund follows:]

RECORD VERSION

STATEMENT BY

MAJOR GENERAL GARRISON RAPMUND

ASSISTANT SURGEON GENERAL FOR RESEARCH AND DEVELOPMENT

DEPARTMENT OF THE ARMY

BEFORE

THE SUBCOMMITTEE ON SCIENCE, RESEARCH, AND TECHNOLOGY
HOUSE SCIENCE AND TECHNOLOGY COMMITTEE

AND

THE SUBCOMMITTEE ON
DEPARTMENT OPERATIONS, RESEARCH AND FOREIGN TECHNOLOGY
HOUSE AGRICULTURE COMMITTEE

20 JUNE 1984

Mr. Chairman and members of the Committee:

I am Major General Garrison Rapmund, Assistant Surgeon General for Research and Development, Department of the Army. The Department of the Army has been designated as the representative of the Department of Defense for this legislation. I represent the Department of the Army for that purpose. I have a brief prepared statement which I would like to present to the Committee.

Mr. Chairman, I am pleased to have the opportunity to provide a brief review of the past and present activities of the Department of Defense in the area of human nutrition research and monitoring. The military has a distinguished record in advancing the science of human nutrition that dates back to World War I when a Nutrition Division was established in the Office of The Surgeon General (OTSG) for purposes of "safeguarding the nutritional interests of the Army." The Nutrition Division was charged to conduct surveys at Army camps to determine quantitatively the actual consumption and wastage of foods and to evaluate if the ration provided the proper amount and distribution of nutrients to support the requirements of the soldier.

With the outbreak of World War II, the Surgeon General authorized the Director of Laboratories at the Army Medical School in Washington, DC, to establish a small laboratory to conduct research in matters related to military nutrition. A series of nutrition surveys and ration evaluation studies were conducted at Army training camps during 1942-43. In 1944, the Medical Nutrition Laboratory was moved to Chicago, IL, to promote close coordination with the food research activities of the Quartermaster Research and Development Laboratory. The mission of the Medical Nutrition Laboratory was as follows:

(1) Investigate the health of troops in all environments to

MAKE SURE THEY ARE WELL FED, HEALTHY AND FIT AS IS COMPATIBLE WITH LOCAL DANGER, DISEASE AND ENVIRONMENT.

(2) PREVENT AND TREAT DISEASE AND DAMAGE IN SO FAR AS POSSIBLE BY NUTRITIONAL AND METABOLIC MEANS.

(3) BE IN A POSITION TO OBSERVE AND MAKE RECOMMENDATIONS ON THE NUTRITION AND HEALTH OF CIVIL POPULATIONS UNDER MILITARY CONTROL.

IN 1953, THE MEDICAL NUTRITION LABORATORY WAS MOVED TO FACILITIES AT FITZSIMONS GENERAL HOSPITAL IN DENVER, CO, WHICH AFFORDED MUCH NEEDED METABOLIC WARD FACILITIES TO SUPPORT AN INCREASING EMPHASIS IN CLINICAL NUTRITION RESEARCH. IN 1958, THE LABORATORY WAS RENAMED THE US ARMY MEDICAL RESEARCH AND NUTRITION LABORATORY (USAMRNL). MAJOR ELEMENTS OF USAMRNL WERE MOVED TO THE PRESIDIO OF SAN FRANCISCO, CA, IN 1974 AND WERE INTEGRATED AS THE DEPARTMENT OF NUTRITION AND THE DEPARTMENT OF MEDICINE OF THE LETTERMAN ARMY INSTITUTE OF RESEARCH (LAIR). A SERIES OF INTERRELATED ARMY MANAGEMENT DECISIONS AND CONGRESSIONAL DIRECTIVES IN THE LATE 1970'S RESULTED IN THE ABOLISHMENT OF THE ARMY NUTRITION RESEARCH PROGRAM AT LAIR AND THE TRANSFER OF CERTAIN PERSONNEL, EQUIPMENT, AND FACILITIES TO THE UNITED STATES DEPARTMENT OF AGRICULTURE (USDA) TO FORM THE CORE OF THEIR WESTERN HUMAN NUTRITION RESEARCH LABORATORY.

FOR A PERIOD OF MORE THAN 35 YEARS, THE ARMY NUTRITION RESEARCH PROGRAM WAS RECOGNIZED AS A NATIONAL AND INTERNATIONAL RESOURCE CONTINUALLY ADVANCING THE SCIENTIFIC KNOWLEDGE BASE NOT ONLY IN MILITARY NUTRITION, BUT HUMAN NUTRITION IN GENERAL. OVER 2,000 SCIENTIFIC ARTICLES AND REPORTS WERE PUBLISHED AND HUNDREDS OF EXPERIMENTAL NUTRITION AND CLINICAL NUTRITION SCIENTISTS RECEIVED A PART OF THEIR RESEARCH TRAINING IN THE ARMY. THE NUTRITIONAL REQUIREMENTS FOR TROOPS IN TRAINING OR PERFORMING PHYSICAL WORK IN TEMPERATE, HOT, COLD OR HIGH ALTITUDE ENVIRONMENTS WERE ESTABLISHED OR VALIDATED AND APPROPRIATE

NUTRITIONAL STANDARDS FOR OPERATIONAL RATIONS AND GARRISON MENUS WERE PUBLISHED. IN MANY CASES, THESE STUDIES ALSO PROVIDED THE BASIS FOR CERTAIN OF THE FAMILIAR RECOMMENDED DIETARY ALLOWANCES PUBLISHED BY THE NATIONAL RESEARCH COUNCIL.

ANOTHER MAJOR CONTRIBUTION OF THE ARMY NUTRITION RESEARCH PROGRAM OF PARTICULAR RELEVANCE TO THE TOPIC OF TODAY'S HEARINGS WAS THE DEVELOPMENT OF ANTHROPOMETRIC, BIOCHEMICAL, AND CLINICAL EXAMINATION METHODOLOGIES TO ASSESS THE NUTRITIONAL HEALTH STATUS OF MILITARY AND CIVILIAN POPULATIONS. THESE PROCEDURES WERE INITIALLY USED DURING WORLD WAR II IN STUDIES OF TROOPS IN THE SOUTH PACIFIC AND IN STUDIES OF CIVILIAN POPULATIONS IN GERMANY AND JAPAN IN 1945-46. THESE METHODOLOGIES WERE FURTHER STANDARDIZED AND LATER WERE USED EXTENSIVELY IN THE NUTRITION SURVEYS CONDUCTED DURING 1955 TO 1967 IN 37 COUNTRIES BY THE INTERDEPARTMENTAL COMMITTEE ON NUTRITION FOR NATIONAL DEFENSE (ICNND). SOME OF THESE METHODS WERE ALSO USED LATER IN THE TEN STATE NUTRITION SURVEY AND, MORE RECENTLY, IN THE HEALTH AND NUTRITION EXAMINATION SURVEY (HANES) STUDIES.

METHODOLOGIES WERE ALSO DEVELOPED TO MONITOR AND EVALUATE THE NUTRITION INTAKE OF MILITARY POPULATIONS USING EITHER DINING HALL OR INDIVIDUAL DIETARY INTAKE TECHNIQUES. STANDARDIZED PROCEDURES WERE DEVELOPED TO MEASURE ENERGY EXPENDITURES AND PHYSIOLOGICAL PARAMETERS SUCH AS SUBMAXIMAL, MAXIMAL AND SUSTAINED ENDURANCE WORK PERFORMANCE IN FIELD AS WELL AS LABORATORY SETTINGS. THESE PHYSIOLOGICAL WORK PERFORMANCE TECHNIQUES WERE USED TO EVALUATE THE EFFECTS OF EXPOSURE TO ENVIRONMENTAL EXTREMES, PARTIAL STARVATION OR VARIOUS COMBAT RATIONS ON PERFORMANCE. FOR THE MOST PART, MEASURES OF PSYCHOMOTOR AND MENTAL PERFORMANCE WERE NOT USUALLY INCLUDED IN THESE STUDIES.

THE SUCCESSES AND ACCOMPLISHMENTS OF THE ARMY NUTRITION RESEARCH PROGRAM DURING THE PRECEDING 35 YEARS RESULTED IN THE DEVELOPMENT OF NUTRITIONAL STANDARDS FOR GARRISON AND COMBAT RATIONS THAT HAVE ASSURED ESSENTIALLY EACH AND EVERY

Servicemember the opportunity to consume a nutritionally adequate and wholesome diet. This observation was confirmed by the nutrition surveys and assessments that were conducted by the military during the 1960's and 1970's which detected essentially no evidence of clinical symptoms of nutritional deficiency (e.g., Scurvy, Beri-Beri, etc.) in the active duty military population. Furthermore, these surveys identified only a relatively low percentage of individuals with biochemical values suggesting they may have subclinical nutrient deficiencies or possibly reduced nutrient stores in the body. However, without evidence of impaired functional performance, such biochemical data by themselves are not particularily alarming. It should be noted, however,that there are essentially no survey procedures available today to measure functional performance that are specifically diagnostic to nutrient deficiencies.

Dietary assessment procedures were used by the military during the 1970's to try to evaluate the nutritional impact of introducing the highly preferred short order and "fast food" menus into garrison or shipboard feeding systems. These studies showed that the usual meals selected from "fast food" outlets were low in Vitamins A and C.

It was recommended that the "fast food" menus include salad bars and fresh fruits, and that for Navy afloat feeding, selected food items should be fortified with certain vitamins. Today, as a result of these studies, the milk shakes served on Navy ships and submarines are fortified with vitamin A. Vitamin C is added to the dehydrated potatoe granules used to prepare french fries. The dietary assessment studies conducted aboard ship also determined that the daily calcium intakes declined sharply when fresh milk supplies became depleted due to limited refrigeration space. The Navy has essentially solved this problem by adopting some new dairy product technologies such as Ultra High Temperature (UHT) milk and newly improved powdered low fat milk. Recent research has emphasized the importance of maintaining

ADEQUATE CALCIUM INTAKES DURING THE YOUNG ADULT YEARS SO AS TO POSSIBLY DELAY THE PROCESS OF BONE DEMINERALIZATION DURING THE LATER YEARS.

SINCE THE EARLY 1960'S, WE HAVE BEEN RECOMMENDING THAT NO MORE THAN 40 PERCENT OF THE CALORIES IN THE MILITARY DIET SHOULD BE DERIVED FROM FAT SOURCES. THIS RECOMMENDATION WAS BASED ON LIMITED BUT SUGGESTIVE EVIDENCE AT THAT TIME THAT EXCESS DIETARY FAT COULD CONTRIBUTE TO AN INCREASED RISK ON CORONARY HEART DISEASE. THE RESULTS OF OUR DIETARY SURVEYS IN THE 1970'S INDICATED THAT THE MEALS SELECTED BY OUR SERVICE PERSONNEL CONTAINED AN AVERAGE OF APPROXIMATELY 42 PERCENT FAT CALORIES. MOST RECENTLY, THE MILITARY SURGEON GENERALS HAVE AGREED TO ADOPT THE RECOMMENDATION ON DIETARY FAT CONTAINED IN THE JOINT DHHS AND USDA PUBLICATION ENTITLED "DIETARY GUIDELINES FOR AMERICANS." MORE SPECIFICALLY, WE ARE NOW RECOMMENDING THAT THE FAT CONTENT OF THE DIET SERVED IN MILITARY DINING HALLS BE REDUCED TO 35 PERCENT FAT CALORIES. I AM PLEASED TO REPORT THAT THE MILITARY FOOD SERVICE MANAGERS ARE TAKING POSITIVE STEPS TO ACHIEVE THIS GOAL THROUGH MODIFICATIONS IN OUR STANDARDIZED MENUS AND RECIPES, BY SELECTIVE CHANGES IN OUR FOOD PROCUREMENT POLICIES AND BY TRAINING OUR MILITARY COOKS ON FOOD PREPARATION TECHNIQUES TO REDUCE THE FAT CONTENT. THE SERVICES HAVE ALSO INTENSIFIED THEIR EFFORTS TO INFORM OUR PERSONNEL OF THE BENEFITS OF PROPER FOOD HABITS WITH PARTICULAR EMPHASIS ON HOW TO MODERATE THEIR FAT AND SODIUM INTAKE.

OUR NUTRITION INFORMATION PROGRAMS FOCUS ON THE IMPORTANCE OF BOTH DIET AND EXERCISE IN THE MAINTENANCE OF PROPER BODY WEIGHT. WE HAVE ADOPTED MANY OF THE NUTRITION EDUCATION MATERIALS THAT WERE DEVELOPED AND EVALUATED BY DHHS AND USDA. THE MILITARY SURGEON GENERALS HAVE ALSO RECOMMENDED THAT OUR TROOP DINING HALLS SHOULD OFFER REDUCED CALORIE MEALS FOR THOSE INDIVIDUALS WHO DESIRE TO LOWER THEIR CALORIC INTAKES. THE SERVICES ARE TAKING POSITIVE ACTIONS TO ACCOMPLISH THIS GOAL.

Now, Mr. Chairman, I would like to focus my remarks on future plans for military nutrition research. Warfare in the 1990's and beyond will be characterized by sophisticated high technology weapon systems, high intensity of battle, wide dispersion of forces, rapid deployment and high mobility of forces, and the likelihood of sustained combat in potentially all environmental extremes. Military operations may have to be conducted in contaminated environments which may require troops to operate in protective clothing systems which will produce an unavoidable heat stress. Due to these projected changes in the future battlefield environment, the conventional combat feeding system, which requires cooks to prepare hot meals on field kitchens from raw ingredients, may become a relic of the past because it will be too labor intensive and logistically burdensome. Instead, troops will be fed almost exclusively with rations or food packets with the lowest possible weight and volume and a shelf life of at least 4-6 years. These rations must require no preparation to be eaten other than possibly rehydration and warming.

Success on this battlefield of tomorrow, as on those of the past, will still ultimately depend upon the Soldier, Sailor, Airman or Marine and their ability and willingness to perform their battlefield task. We know from the older literature that nutritional factors can play an important role in enhancing and sustaining military performance. However, we are also aware of large gaps in the existing nutrition and military performance data base which prevent us from satisfactorily answering such complex questions as (a) how long can troops be fed packaged rations as the sole source of subsistance without adverse effect on military performance and (b) what is the effect of inadequate energy or fluid intakes on the ability of troops to perform military tasks?

Prior to making a decision whether to reestablish a military nutrition research program, we contracted with the National

Academy of Sciences for advisory assistance. In October 1982, the Food and Nutrition Board of the National Research Council established a Committee on Military Nutrition Research. The Committee's initial tasks were to identify nutritional factors that may critically influence the physical and mental performance of military personnel in all environmental extremes; to identify deficiencies in the existing data base; to recommend research that would remedy these deficiencies; to recommend approaches to study the relationship of diet to physical and mental performance; and to review and advise on nutritional standards for military feeding systems.

Mr. Chairman, I would like to highlight two items from the FY 1983 Annual Report of the Committee on Military Nutrition Research. The Committee noted that as a result of recent developments in military technology, effective military performance is increasingly a function of a soldiers' ability to perform complex cognitive and psychomotor tasks. However, before trying to determine the effects of nutritional manipulations, there is an urgent need to establish a battery of cognitive performance test procedures that are not only sensitive to nutritional variables but that are also reliable and valid predictors of military task performance. Last week, the Committee hosted a workshop on Cognitive Testing Methodologies for Military Nutrition Research which will be very helpful in focusing the direction of our research efforts in that important area.

The Committee also recommended that there was a need to assemble the data base on the relationship of energy and fluid deficits to cognitive, psychomotor and physiological performance and to try to develop a computer model to predict the efects of the deficits on performance domains. In this regard, the Committee will be hosting an additional workshop in October 1984 devoted to evaluating the strength and weakness of the existing data, identify critical gaps and to suggest experimental approaches to fill them.

I am pleased to announce that a military nutrition research component is currently being established at the US Army Research Institute of Environmental Medicine (USARIEM), at Natick, MA. The mission of the group will be specifically directed to nutrition related problems of feeding troops in tomorrow's battlefield and the critical end-point of the research will be the effective performance of cognitive, psychomotor and physical tasks under sustained operations in all environmental extremes. The military nutrition research program at USARIEM will be responsive to the needs of all the Services and will be conducted in close collaboration with the food technology and food acceptance research programs of the co-located US Army Natick Research and Development Center (USANRDC) which is responsible for all DOD food research and development. Through the mechanism of existing Memorandum of Understanding (MOU) between DOD and USDA, every effort will be made to exploit opportunities for collaborative nutrition research between DOD and USDA laboratories and to avoid duplication of effort.

In the process of developing long range plans for the new military nutrition research program, it has been most helpful for DOD to participate as a member of the Interagency Committee on Human Nutrition Research. We have actively participated with our sister agencies in the preliminary stages of developing a Federal human nutrition research plan. We are optimistic that the Human Nutrition Research and Information Management System will be a useful tool to rapidly obtain information about ongoing nutrition research studies being supported by the Federal government.

In regard to H. R. 4684, DOD defers to DHHS and USDA on the need for a National Nutrition Monitoring System. We are concerned, however, that the administrative structure proposed by H. R. 4684 is excessively cumbersome to achieve the desired objectives. We do not support the proposal to have the Secretary of Defense serve as the co-chair for the Directorate for Nutrition Monitoring and Related Research. Nutrition monitoring is primarily a responsibility of DHHS and USDA and it is most appropriate for representatives of those two key agencies to co-manage the National Nutrition Monitoring System. The Department of Defense is quite receptive to providing qualified representatives to serve on Interagency Committees and Task Forces when appropriate.

The Bill also proposes to incorporate military populations into the National Nutritional Monitoring System survey design. The Department of Defense does support this concept because the previous National Health and Nutrition Examination Survey (NHANES) and Nationwide Food Consumption Survey (NFCS) had specifically excluded military populations. The Military Surgeon Generals are responsible for monitoring the nutrition status of their respective Service's personnel and reporting any nutritional deficiencies and excesses. With the transfer of the Army Nutrition Research Program at LAIR to USDA, we no longer have the trained personnel, equipment or facilities to execute this nutritional status monitoring mission.

The Department of Defense is interested in maintaining close liaison with those agencies responsible for the National Nutrition Monitoring System. Benefits to DOD would include the opportunity to integrate selective military populations, as appropriate, into the survey design. In addition, there may be opportunities to cross train selected DOD health professionals in nutritional monitoring procedures. This would serve to improve our medical readiness posture if at some point in the future , as in the past, the military medical departments are given the responsiblity to monitor the nutritional status of civil populations under military control and advise on the need for rationing and re-distribution of a limited food supply. As I mentioned earlier in my remarks, many of the currently used clinical, biochemical and dietary techniques for nutritional

ASSESSMENT OF POPULATIONS IN A FIELD SETTING ARE THE PRODUCT OF PREVIOUS MILITARY NUTRITION RESEARCH INVESTMENT. WE ARE HOPEFUL THAT OUR PLANNED MILITARY NUTRITION RESEARCH PROGRAM TO DEVELOP STANDARDIZED METHODS TO ASSESS THE EFFECTS OF NUTRITON ON COGNITIVE AND PSYCHOMOTOR FUNCTION WILL ALSO PROVIDE SPIN-OFF TECHNOLOGIES TO THE NATIONAL NUTRITIONAL MONITORING SYSTEM.

I HAVE APPRECIATED THIS OPPORTUNITY OF APPEARING BEFORE THE COMMITTEE AND SHALL BE HAPPY TO ANSWER ANY QUESTIONS YOU MAY HAVE REGARDING THIS TESTIMONY.

Mr. **Brown**. Thank you very much, General.

Mr. MacKay.

Mr. **MacKay**. Thank you, Mr. Chairman.

We sort of ended up last year's hearing with mutual agreement that we would get back together sometime and check on what was said. I would like to start by asking you some questions. Dr. Bentley, you indicated last year that USDA's Human Nutrition Board of Scientific Counselors would be reinstated. Has that been done?

Dr. **Bentley**. Yes.

Mr. **MacKay**. How frequently has the Board met since last July?

Dr. **Bentley**. It has not met since last July, but it is scheduled for a meeting in August.

Mr. **MacKay**. It was scheduled for a meeting last week, wasn't it?

Dr. **Bentley**. There was a tentative plan for last week, but there were procedural questions. There is one thing that we have to keep in mind that has taken an unusual amount of time to get clearances through because this committee falls under the advisory—I believe I have the correct reference—the Advisory Board Act and they have to be cleared. This takes considerable time, and that has delayed us. But we have a meeting scheduled, and we look forward to discussing with that group a number of issues that have been raised, not so much on the procedural operation, but on trends that they might see, that for human nutrition research, related to broader issues. One of them is special interests in agriculture. What does it mean in terms of planning for agricultural research and education programs for the years ahead?

Mr. **MacKay**. Both of you gentlemen indicated last year that the Human Nutrition Research and Information Management System which was mandated by the 1981 Food and Agriculture Act would be functional by October 1983 and operational by February 1984. You indicated that the annual report due to Congress in July 1983 was in the approval process.

When can we expect that annual report?

Dr. **Brandt**. It has now been cleared by our entire Department, and my understanding is you will get it this week.

Mr. **MacKay**. When can we expect the second annual report which is due next month?

Dr. **Brandt**. Just a second, please.

Dr. **Simopoulos**. We have already progressed to the point where the system is indeed operational and the document has been written, so the people who want to use the system will know how to go about it. So, I would hope in about 2 months' time.

Mr. **MacKay**. Which agency has been designated the lead role?

Dr. **Brandt**. Health and Human Services, specifically, the NIH, is the lead agency. At the present time, all the requests for the use of that system goes through the NIH Nutrition Coordinating Committee.

Mr. **MacKay**. Dr. Brandt, last year you indicated the new Interagency Committee on Human Nutrition Research would assume the responsibility which had previously been accepted in 1982 by OSTP for developing a Federal human nutrition research plan. You said you hoped it would be submitted to us prior to our hearing this year. What progress have you made on that?

Dr. **Brandt**. That plan currently exists and we have asked each of the agencies to review the plan with two goals in mind. One is to look at their own participation in particular research projects and indicate those where they wished to participate and may not have otherwise; and second, to give us the kind of priorities that they see as critical so that we will have a 5-year plan which not only outlines specifically what the agencies intend to do—and this is a realistic plan; this isn't some sort of—they are not supposed to be sitting back and dreaming about things that might have been, but rather things that will be. I think it is progressing along, and certainly some time this fall we should be able to finalize it, I believe.

Dr. **Bentley**. Dr. Brandt, if I may add to that, I think the material has been distributed to the interagency committee and the matter now is to talk about cross cutting the priorities. We can begin taking priorities from, say, USDA, which has a set of priorities and then from NIH activities and you begin to match those across agencies. My experience in working with the Joint Council for Food and Agricultural Sciences is that is the place where you begin to have some very important and useful discussions and important ones. I think you can understand, Mr. MacKay, that this is the place where we have to try to find and get compromises and understanding on an agency to agency basis. Again, that is where I think we will make some progress, but that is the next important step. But getting the material together has been quite a major undertaking both from an agency point of view and from the staffing for the interagency committee.

Mr. **MacKay**. Has there been non-Federal participation in the development of the plan?

Dr. **Brandt**. Not directly. There has been a fair amount of input into it. For example, in the development of the research program in nutrition for the NIH, we have in each of the Institutes councils of outside people who give advice. There are reviewers who are outside, non-Federal people who give advice, so that indirectly and implicit in the process there is non-Federal participation. Once we get the priorities, we are clearly going to talk to researchers outside to hear their views of those priorities.

Dr. **Bentley**. I can merely elaborate by saying yes that while there hasn't been the formal tie because of the nature of the assignment, speaking now for the USDA, when they are speaking about a specific activity, there is certainly knowledge of and involvement in input either somewhat indirectly perhaps from the State agricultural experiment stations where research is being conducted in human nutrition, and in other agencies, and other universities as well. So, yes, I think my answer is very much the same as Secretary Brandt's has been.

Mr. MacKay. This legislation has a directorate that is modeled after the acid precipitation task force. Dr. Bentley, USDA is one of the three joint chairpersons of that task force and HHS is a member of that task force. We are trying to do for nutrition what it is doing. Is it your experience that task force has been an administrative nightmare? It is our experience that it is getting something done, more than you are.

Dr. Brandt. I haven't had any experience with that task force. I don't know.

Dr. Bentley. Well, the acid rain, I don't wish to be critical to the acid rain group because we have spent a great deal of effort. There has been progress made, but there has been an unusual amount of effort put into the administrative structure with the acid rain group. It is complicated. It is complicated and there are a lot of people to work with in accomplishing the objectives. I think that it is probably by the very nature of it, you have to have some system in bringing about agencies of this type and as divergent a group as that are involved and interested in the matter of acid rain. But the acid rain organization administration is complex and it is taking a great deal of time.

I think we are making progress there, but progress really comes down to one or a few individuals that have major responsibilities taking the very strong initiative to get things done, and that is, I think, the problem. The larger organization doesn't necessarily get the work done, but the commitment of individuals from the lead, important agencies, has been a key factor there.

The same way is true in nutrition. I know we would all like to see more done, but over the past two years, I think there has been substantial progress made in communication and reaching some understanding among the agencies, and that is reflected, I think, as a result of the commitment of individuals, the representatives from the various agencies to finding answers to these questions and making progress. I still think that is the important thing, the commitment of the individuals and of the Department. I know I speak for the Department of Agriculture, and it is highly committed to this responsibility.

Mr. MacKay. We are the oversight committees. We have a responsibility, and I don't think there is any disagreement in the room that these programs are not providing useful data. They are not providing data that is coordinated, the data base is not coordinated, and the data is not timely.

I am a "Johnny-come-lately." I only have—this is only my second meeting, but apparently this has been going on for 6 years. Are you willing to give us specific commitments as to what will happen? You are saying, Dr. Bentley, that there is a greater priority being given to the program, yet the budgets don't reflect that necessarily.

Dr. Bentley. Well, in the Department of Agriculture, when you come to the budgets, given the funding situation we had, part of the reason we have been able to increase the human nutrition research program budgets in the Agricultural Research Service is that there has been actual redirection of funds, when it is possible, to programs in human nutrition. We have had difficulty getting sufficient funds on a center by center basis, and we have had to make some redirections. So, I would say that while our budgets may not be as much as we would like, I believe there is an 11-percent increase in the ARS budget for that. Much of that has come about due to the fact that they were able to face some hard questions on redirection of funding by reducing our administrative staff arrangements and committing those funds that were released to research programs. That is part of the way that we achieved this. These are hard decisions to make, and they are hard priorities, and first when one does that, you immediately come up against a question of competition for funds because everyone is clamoring for more money for more research programs regardless of where it is. So, we made that commitment.

So, that is what we have had to do. That is a reality of the questions with regard to budgets. We hope that we can continue this commitment, but we think it is very important. It is one of our high priority areas.

You come down to the Joint Council for Food and Agricultural Sciences which has looked at priorities and selected eight that they consider the ones to be given attention to with regard to the future; human nutrition is one of those. In the ARS 6-year plan, they put emphasis on human nutrition in terms of their planning. So these are the steps that we are taking to try to answer these questions. We are always faced, of course, with the matter of fund limitations.

Mr. MacKay. Dr. Brandt, I guess I should have addressed that question to you. Your agency is struggling with the question of getting ready for HANES III and budget constraints. Is that now put back a year or is it back at the front.

Dr. Brandt. At the present time, we are trying to figure out a system for getting it underway as originally scheduled. Our principal problem, as you know, is that it was scheduled to be conducted with the Nationwide Food Consumption Survey in 1987 in the hope that we would be further along with and not interfere with the analysis of HANES II and the Hispanic HANES which will be completed this December. As a matter of fact, the Mexican-American data has already been collected and will be available this fall on data tapes. We thought that it might be better to try to delay it 1 year to make sure that we didn't interfere with all that, because of the interest of this committee and the Department of Agriculture and numerous other organizations, we are now trying to figure out how we can go about coming back to the original schedule.

Mr. MacKay. Thank you, Mr. Chairman.

Mr. Brown. Mr. Olin?

Mr. Olin. Thank you, Mr. Chairman.

I appreciate the testimony of those of you on the panel. It is odd, however, to observe that your testimony on this subject is quite at variance with the testimony of the public agencies that preceded you on the program here. Those individuals represented quite a large number of public agencies that are related to nutrition and public health. I would say that despite all the activity that you report that has been going on in the nutrition research field, at least those agencies aren't giving you much credit for having much useful output.

I just wonder what kind of public feedback you structure into your work to indicate to you whether what you are coming up with has useful value to the public?

Dr. **Brandt**. I guess it depends a little bit on how you define the public. But certainly, as I pointed out, throughout the Public Health Service, all of the research programs have outside review groups, such as the intramural programs within the structure of the Public Health Service. We have groups who come in and view not only the completed research but also the plans. We have advisory committees for all research. No research grant is awarded by the Public Health Service that has not gone through a dual review both of competent scientists to evaluate the research as well as the councils who include public participation.

I think we have extensive public participation in the process. In fact, I think you will find that as a general statement that those groups, at least, seem reasonably pleased with the progress that is being made. I think, Mr. Olin, that one can look at almost any area of public health and medicine and easily argue that more could be done than is being done. I am sure that to some extent that is true. On the other hand, I think that it is a question of trying to make reasonable progress in a systematic, scientifically sound fashion, and that is what we are trying to do. I think we have a large number of scientists who participate and agree with that position.

Mr. **Olin**. How do you account for the stated reaction of the President's Task Force on Hunger with regard to this subject? It is reported, generally speaking, that that task force was unable to quantify hunger. If we had any kind of a reasonable national nutrition monitoring program in effect, certainly it would have been possible for them to obtain some pretty good data with regard to at least the quality of nutrition in various segments of our population. How do you account for that void in the task force's report?

Dr. **Brandt**. Well, I didn't participate in the task force, but I think that one of the criticisms for some time has been the issue of whether or not we have sufficient data on subgroups within our population as to nutritional status. Hispanic HANES is the first step toward alleviating that or toward gaining some of that information to assist us, and as I said earlier, we have completed the Mexican-American data collection in the southwestern part of the United States. We are collecting data now in New York and other parts of the country to gain additional information. That is step one toward attempting to resolve some of the problems that are in existence.

Nevertheless, when you are collecting these kinds of data, there is a time period involved. It is not possible to instantaneously analyze and interpret complex sets of data without getting into the possibility of misleading kinds of conclusions.

Mr. **Olin**. Are you saying that you did not have any data, then, that was in a form that could be used by the President's commission?

Dr. **Brandt**. No, sir. We supplied data from the HANES and from other sources that we have access to and supplied that. That is what we were asked to do and did. Now, I don't know what the Department of Agriculture may have done.

Ms. **Wolf**. If I could jump in——

Mr. **Olin**. Yes.

Ms. **Wolf**. We have conducted in, I think, 1978 and 1980 surveys of low income populations in the United States. However, please bear in mind that our surveys would provide food intake information over relatively short periods of time. It is rather hard to extrapolate that to hunger at the present time.

I do want to point out that in some of our surveys and in our planned surveys, the ones that deal with low income populations, we intend to ask people to give us some self-appraisal as to the adequacy of their diet. For example, questions such as do they have enough of the kinds of foods that they want to eat? Do they have enough but not the kinds that they want? Do they have enough sometimes or not very often.

If we do get an answer that they don't get enough and don't have enough often, there will be further probing to try to find out.

We had extensive contact with the President's Task Force on Food Assistance. I think that we spent quite a bit of time educating some of those members of the task force about the difficulties in conducting nutrition surveys, that you cannot come up with quick statements that hunger does exist here or there on the basis of the type of surveys that we have at the present time.

Mr. **Olin**. Did you agree with their findings that hunger could not be quantified?

Ms. **Wolf**. On the basis of the information, I would say we find it difficult to say that we know that on the basis of the survey information that we have at USDA at the present time that we would have scientific support to say that there was hunger in existence at the time that they were conducting their study. We could not—we would not know.

Mr. **Olin**. You would not answer the question and put it——

Ms. **Wolf**. On the basis of——

Mr. **Olin** [continuing]. In terms of nutrition. Are you in a position to quantify the state of nutrition of various sectors of our society.

Ms. **Wolf**. We can comment. We could comment on the quantity of—we could perhaps give statistics on the number of people who have dietary intakes that are below certain levels of the RDA. The exact consequences of that we really don't know. In fact, one of the studies we have underway now with the Food and Nutrition Board is to get them to help us to determine the consequences of diets that are below a certain level of the RDA.

Mr. **Olin**. It does seem a little bit incredible to me that we have been working in this area for a relatively long period of time. We have talked about 6 years here today, but I am sure it is a good deal longer than that. And we have not yet come up with data that would be useful for at least the broad purpose of the President's Task Force. It is just incredible.

Ms. **Wolf**. Well, but the new type of survey that I mentioned in my testimony, the continuing survey of food intakes of individuals, will provide us with a more rapid assessment of nutritional status, and this is one of the reasons why we are so enthusiastic about moving in this new direction. As I mentioned, in the second year of that, we will have a nationally representative sample of low income individuals which really will provide much better information. If we had that type of information when the task force was convened, we would have something more significant.

Mr. **Olin**. I guess the thing that is coming out of the hearing is that the authors of this bill and the public people who have testified really are saying that they think this program really shouldn't be allowed to continue to go on at the snail's pace that you might say we have been proceeding. In this period of time, we should have gotten much farther with it. It should already be much more timely, and you can't help but feel in listening to the testimony this morning, the same general conclusion I sort of come to, whether some different approach or some method of pepping the thing up might not be appropriate.

Let me ask you one more question, a little bit different. My notes here indicate that in last year's testimony, I am not sure which testimony it is—Dr. Brandt's testimony, you indicated that you would review the balance and representation on the committee. That is the Nutrition Evaluation Monitoring Committee. I don't believe that since that time—let's see, no changes have been made. What are your plans in this regard this year?

Dr. **Brandt**. Well, in the first place, when I testified last year, there wasn't a committee. So one change has been that there is now a committee and it has met four times and is starting to work. I am not sure quite frankly what that was alluding to, but——

Mr. **Olin**. What does the committee, as presently constituted, represent across the different agencies—how do you feel——

Dr. **Brandt**. Oh, wait a minute. Which committee? I guess I misunderstood.

Mr. **Olin**. We are talking about the Nutrition Monitoring Evaluation Committee.

Ms. **Wolf**. They are all external; they are not Government.

Dr. **Brandt**. Yes; they do not represent the Government at all. Those are all external people appointed.

Ms. **Wolf**. Mostly professors of nutrition, medical authorities.

Mr. **Olin**. These are the outside Government people?

Dr. **Brandt**. Yes, sir.

Mr. **Olin**. All right; have you changed the constitution of that committee?

Dr. **Brandt**. Not yet, no.

Ms. **Wolf**. They are just in the process of getting ready their first report on the nutritional status of the Nation and giving advice on nutrition monitoring. They have had four meetings, the last one of which was just last week, and the report, the final drafts of the report apparently are in progress.

Mr. **Brown**. Would the gentleman yield to me, please, at this point?

Mr. **Olin**. Yes.

Mr. **Brown**. The point here, I think, follows on a statement that was made earlier, whether in connection with the monitoring and the dissatisfaction that had been expressed by the earlier witnesses that there would be an effort made to broaden the input into the process. Now, you have this external committee which, as Ms. Wolf indicated, is composed of four eminent researchers, I think. The question is, I think, are you planning to, can you broaden this committee to provide the additional input which apparently you aren't getting with regard to the kind of criticisms, we will say, that had been offered earlier. I think last year you indicated you might do that. The question before us now is have you or do you plan to do that in order to get this kind of feedback from the groups in the field? This is no criticism of the people on that committee at present, I don't think.

Dr. **Brandt**. Well, at the present time we have no plans to. We can certainly consider it, to take a look at it. I think what we were looking for were the experts to give us advice about how to do this, and I think certainly we can sit down and reconsider that position.

Mr. **Brown**. Well, I am looking at your testimony today in which you indicate an intention to expand the membership of the Nutrition Monitoring Evaluation Committee to six to eight members from outside Government to provide a more broadly representative group of data users and establish a mechanism to rotate the terms of membership. I think this kind of action, in light of the earlier expressions, might be one way to——

Dr. **Brandt**. However, at the present time, we were principally intending that to be drawn from the expert group. There is no reason we can't do that. We have had conferences of data users in an attempt to try to ask them to provide us with the kind of information they would like to see and the method they would like to see it in. We have invited broadly people to come to those conferences in an attempt to try to get from them that kind of input.

I think one of the issues is that we have to be realistic and recognize that it just is going to take time to analyze data. Having been around data for 25 years, I have not seen any way that you can speed it up a whole lot.

Mr. **Brown**. Well, Dr. Brandt, one of the things I felt that you brought to your position that was of considerable value was expertise in the management of data. You know as well as I how our capabilities in that field are improving all the time.

Dr. **Brandt**. Yes; they are. I agree.

Mr. **Brown**. We expect you, and I have told you this before, to be a leader in improving these capabilities, and I still hope that you will do that.

Dr. **Brandt**. In the field, with Hispanic HANES, we are testing some of the better automation procedures which I hope will allow us to do that. I think the Hispanic HANES is an example that we can and we have speeded up the process at least in getting data available to the public which, in one sense, is a step forward.

Mr. **Brown**. One of the opportunities that you have now is to jump on the recommendations of the Grace Commission which I have commented on earlier. If you see any possibilities for enhancing the productivity of your data processing operations through additional investments, I think you have a good climate for making that kind of a request at the present time.

Dr. **Brandt**. Yes, sir.

Mr. **Brown**. We do have a rollcall. I don't intend to go to it, but the other members I hope will return shortly, and in order to expedite the process and to hopefully get you out of here a little sooner, I am going to ask a few questions myself. I am not going to excuse you right at this moment. I know you were hoping I would.

Dr. **Brandt**. No, no. I assumed that you might have a question.

Mr. **Brown**. This committee, both of these two committees, have, I think, tried to be helpful in solving the problems which we face in developing a program of nutrition research and monitoring. We haven't sought to focus a large glare of publicity on this area or to create a crisis or anything, but we have been persistent. I think you will recognize that, and we intend to continue to be persistent. Of course, one of the things that we will do is to analyze this hearing as we have previous hearings to see what you have said and how it compares with what you said last year and the year before and whether or not we really are making progress. We probably will ask the GAO to look at this operation again and see if their own analysis shows any improvement, and they have been critical to some extent in the past.

We are not enamoured of the process of making a more complex bureaucracy as a solution to the problem or adding to the number of reports you have to make, but we are interested in seeing that the public gets some benefit from the investments that we are making in nutrition research, monitoring, and so on. I think you all share that goal. We are interested in substance, not in appearance.

With regard to the question of substance, General, you have indicated a number of very interesting aspects of the military involvement in nutrition. I was particularly interested in your comments with regard to calcium intake and to fat intake. Both of these are matters of great concern to the general population. The military seems to be able to analyze the problem and to take corrective steps in a fairly expeditious way, and I think you are to be commended on that.

Have you run into any political problems, shall we say, and I am not talking in partisan terms, but vested interest politics when, for example, you set new standards for reduced fat intake in the military. That causes a problem in the civilian population, you know.

General **Rapmund**. Sir, our efforts on the medical side of the house to improve the nutritional balance of the diet of the soldiers has really not met with any organizational opposition at all. As you know, we have tried to be responsive to changing fashions. We have tried to incorporate fast food concepts into our garrison feeding program, and we have undertaken examination of what the implications of that are for the nutritional status of personnel. We have exerted, I think, some proper authority in encouraging contractors to increase salads, fruit, and set guidelines. Certainly, the Surgeon General has, the Surgeons General of the Army, Navy, and Air Force, have exerted their responsibilities across leadership to encourage a general reduction in the proportion of fat in the diet, and also have drawn clear attention to potential nutritional deficiencies that could occur if the menus and the rations are not properly constructed.

So, I think a clear answer to your question is no, sir.

Mr. **Brown**. Have you been able to draw any conclusions about the reduced incidence of, let's say, heart disease or if it is related to that and the reduced fat intake?

General **Rapmund**. Not at all, sir. That is too premature, but we would hope that the kind of regular physical exam and physical fitness emphasis that is going on in the Department will eventually contribute to answering that question.

Mr. **Brown**. You have in place the capability to monitor this in the sense of cause and effect relationship?

General **Rapmund**. Not directly, yet, sir. What we have in place is a physical exam system and also an emphasis on physical fitness and also physical fitness standards. We now have, speaking now for the Army, Armywide physical fitness training programs, and that linked to a data base which accumulates all the information, it will be appropriate to submit that to analysis. But, of course, we are primarily dealing with a young population and we have to be patient.

Mr. **Brown**. What about the effects of the increasing percentage of women in the military as it relates to this problem of calcium deficiency? That is particularly it seems, from the data we received from earlier witnesses, a problem with the female population. Their intake of calcium appears to be somewhere in the order of one-half what the male population is, for some reason or other.

General **Rapmund**. The strategy here is the same, not just to focus on that particular group in the military population. The strategy is to increase nutritional awareness, nutritional education, through application of the materials which are generated in the civil sector and to establish health and fitness teams at the medical facilities around the Army to influence menu planning, and through nutritional education, to make sure that potential deficiencies are recognized and dietary choices corrected.

Mr. **Brown**. You don't try to coerce the female military into drinking as much milk as the males, do you?

General **Rapmund**. No, sir.

Mr. **Brown**. They are exposed to the same diet, so I presume that there would be a tendency for them to equalize their calcium intake.

General **Rapmund**. There is ample opportunity for improved calcium intake, no question about that, sir.

Mr. **Brown**. Dr. Bentley and Dr. Brandt, both of you made reference to research studies on osteoporosis, different studies apparently, or research studies related to that. I am intrigued, because as I get older and become exposed to older populations, both male and female, I become aware of the seriousness of this problem. Both of you perceive this as a nutritionally related kind of problem, do you not?

Dr. **Brandt**. Certainly, it probably has a nutritional component. It is clearly not entirely a nutritional deficiency. I don't think anybody would try to claim that. The NIH recently had a consensus development conference on the subject of osteoporosis trying to pull together people to try to define those areas where there was agreement. I think it would be fair to say that it is a mixture of nutritional and endocrinological problems, not solely or not entirely either one, but an interaction between the two.

That conference and the follow up to that conference which was held two or three months ago has been to put together a group at the NIH to try to define the kinds of research needed to follow up on it. So, I would say the answer to your question is a qualified yes.

Mr. **Brown**. Again, I am way out of my depth, but a few articles I have seen indicate that the treatment almost invariably is increased calcium intake in one form or another which seems to be related to nutrition, if I am not mistaken about my nutrition.

What about this question of fat intake. Both of you are aware of the difficulties that recommended dietary guidelines which propose that a reduction in fat might be beneficial to human health, might also cause some problems within certain sectors of industry. I will ask you the same question I asked General Rapmund. Is there a political problem in the sense of a sensitivity to clientele or interest groups that may have had an impact upon the slowness with which we are moving in some of these nutrition research areas? It is sort of like tobacco, you know.

Dr. **Brandt**. I don't think it has had a dramatic impact on our ability to give out reasonable advice or to put out information. We recently published, as you know, and widely publicized the results of a prolonged study which clearly demonstrated, I think for the first time, that if one lowers the serum fat levels, that you can in fact reduce the probability of heart attack. And furthermore we demonstrated that an available drug on the market can assist you in doing this. So, I think there is little question that there are a number of interest groups that don't entirely agree with that message, but we certainly continue to encourage a reduction in the percentage of caloric intake that is from fats and have no intention of changing the message.

Mr. **Brown**. Do you want to comment, Dr. Bentley?

Dr. **Bentley**. Let me start by saying as far as the recommendations, whether it comes through the extension service educational programs or HHS or wherever it is, there is a recommendation that moderation in the intake of fats be considered along with other food and diet intake, for example, moderation in terms of total calories and the need for a balanced diet. That, I think, is where we see full agreement in the recommendations that are coming out.

The questions of the impact that you are referring to is a real one, and I think that the inference is to the agricultural food industry. Then we have to keep in mind that there have been changes made, for example, to leaner hogs. That has been a major source and a major goal in breeding and selection programs of production, for beef likewise, and in other areas. There are changes in marketing systems that attempt to meet this need.

Now, those changes are not easy to be made because it involves some basic characteristics of the plants and animals that we use for production. So, I think this is a real and important problem. There are also changes that have been taking place within the processing of food, and there are fats and oils that are getting into the food system that probably weren't there in earlier times or used in the amounts that they are being used. Again, I am not trying to infer criticism. I am saying that is reality.

That is the reason that I mentioned in my testimony that one of the challenging policy, not policy but trend questions we have, is what is the implication of current developments and recommendations in nutrition in terms of agricultural production in the future, because the farmer and the farm community can't change animals just based upon the issuance of a report. It takes a long time to do it, and I think there is to be credit.

Now, there are a lot of people that may resist the change. There are questions that can be raised, I think in all honesty, Mr. Chairman, where there are people who see trends or possibilities or so forth are general questions, whereas the farmer has to say, are we going to plant this crop this year or are we going to quit producing hogs and so forth. Those are not probability questions; those are questions that you either have to do it or not do it. So, that is some of the difficulty.

However, I think in our role, we would like to work to try to get information, the best information possible, and show the linkages so that people can make better decisions about production, because a farm commodity or community has no reason to produce a crop or to produce livestock or put any product on the market that isn't in demand by the consumer. It sounds like a very self-apparent statement to make, but it is still a real one.

We also have to remember that it hasn't been too many decades ago when many products were sold on the basis of their higher fat content. The most superior cuts of beef were those that had the most fat rather than the leaner types. I shouldn't say most, more. So, these are the implications, but I think this is very important period in agriculture and that is why we are so deeply involved with the nutrition program.

Mr. **Brown**. I precisely agree with your statement, Dr. Bentley. I think you have said it very well. I am not attempting to be critical when I raise the issue of external interest groups having a concern about these areas. Those interest groups probably affect the Department's concern less than they do us in Congress. So, I am not trying to be critical of your response. On the other hand, I think we have to be aware that in the field of nutrition research, as in so many other areas, we do operate in a political climate subject to the various forces within the society. We would not be acting intelligently unless we were aware of that.

If I may bring up another incident of this, I have seen a couple of articles recently in the New Yorker having to do with the impact of subclinical doses of antibiotics on hogs. In this case, the dose may be altering the genetic structure of certain immune-causing organisms and this immune change is jumping around from animals to humans. It seems to me that is an area that, since it has an impact both on animal health and productivity and human health and productivity, that we should be seeing some joint research as a part of our general interest in nutrition, if nothing else.

I wonder if you would care to comment as to whether or not you have an active coordinated research program in this area?

Dr. **Bentley**. I can't from personal memory say whether there is an active coordinated program in this area. I do know that we have research in this area, and there is a great deal of concern, because, as you have pointed out, Mr. Chairman, the value of using these feed supplements in livestock production and then the concern that it might have with residues, and so forth. Perhaps the biggest concern is the misuse of products and against the regulations.

Now, in evaluating micro-organism response, the Department has a lot of facilities that carry on research like that. We have worked on it for years. The matter of developing resistance and changes in livestock or, particularly, in plants and micro-organisms, of course, is as old as agriculture. You can go through the rust example and wheat, and so forth, and realize that. It is a question we will continue to study and are working on. There is a lot of work done at universities. There is lots of work done in our own ARS setup.

Now, as to whether or not there is a cooperative one right at the moment, I can't recall it if there is. I see no reason why there shouldn't be because we have cooperative arrangements on many activities throughout our——

Mr. BROWN. Dr. Brandt, are you aware of any concern in your department with regard to the possibility that through mechanisms we don't fully understand there is some suppression of the effect of antibiotics in their use in curing human disease as a result of this subclinical feeding to animals.

Dr. BRANDT. Yes, there has been some concern about that. Rather than direct involvement or even indirect involvement with the immune system, it is mostly that it may give rise to resistant organisms.

Mr. BROWN. I think that is what I have been trying to say.

Dr. BRANDT. Yes. We have had some concern, and the FDA has been reexamining all of our procedures and policies and so forth with respect to the use of small doses, subclinical doses, of antibiotics in animal foods and other supplements. Dr. Forbes is here; he may be able to give you more details than I can, but I would be happy to supply you with all the information anyway.

Dr. FORBES. That would be my answer, sir, because I am simply not up to snuff on it myself. I know the Center for Veterinary Medicine is very much involved and can put together a direct response to your question.

[The information follows:]

The scientific issues associated with the safety of using antibiotics in animal feeds are very complex. Because of the complex nature, the FDA position must be formed from the summation of many studies rather than from a single study.

The House report on the Food and Drug Administration's (FDA) 1979 Appropriations authorized $250,000 and directed that FDA contract with the National Academy of Sciences (NAS) for ". . . Research to compare the health of humans with extensive exposure to animals and/or their products, receiving antibiotics at the subtherapeutic level with the health of comparable individuals not so exposed." This contract was awarded in March 1979, and it resulted in a review of the literature and an assessment of the scientific status which was the subject of an NAS report received in March 1980.

The report of the NAS study entitled, "The Effects on Human Health of Subtherapeutic Use of Antimicrobials in Animal Feeds," supports this approach since it concluded that a single, all encompassing study could not be designed.

After carefully reviewing the NAS report, an international committee of experts in the field of epidemiology and infectious diseases, in consultation with FDA, designed a program of study for the Agency. This work included epidemiological studies concerning *Salmonella* and *campylobacter* organisms. The work is in harmony with the recommendations of the NAS and should prove very useful in helping decide the issue.

One of the gaps, in our knowledge, is the quantitation of the effects of drug-resistant bacteria from animals on the bacteria causing disease in humans. One of the primary routes of the transmission of organisms from animals to humans is the food chain. In the FDA study, specific bacteria from meat products are being studied along with the same genera of bacteria causing disease in humans in the community. By doing this intensively and for a long enough period of time one can estimate the quantity of disease in that community being caused by bacteria in the meat supply. Ideally, one would like to study the entire spectrum of genera in *enterobacteriaceae*. Since many of the *enterobacteriaceae* are not unique enought to be of much epidemiological value, *Salmonella* and *campylobacter* were selected as models because they are unique enough to be of value.

Epidemiologists from the Centers for Disease Control (CDC) and members of the international committee referred to above, have remained as advisers to the project and have monitored its progress. More specifically, poultry, pork and beef products were sampled periodically in the community and tested for the presence of *Salmonella* and *campylobacter*. During the same time period, isolates of *Salmonella* and *campylobacter* causing disease in humans were collected. Various features on these isolates are being compared to determine if the same strains appear in meat and in human disease. Human cases of *Salmonellosis* and *campylobacteriosis* were investigated through a questionnaire technique and by further microbiological sampling to more clearly define the role of meat and other foods as a cause of their disease.

The final reports are due July 31, 1984.

FDA will continue to evaluate of relevant data from all sources to form its regulatory position. This includes studies published before and after 1980. Five FDA studies have been completed since 1980 and two additional studies are near completion. The FDA studies utilize a comparison of pathogenic organisms (*Salmonella* and *campylobacter*) and their resistance features found in meat and those found causing disease in humans in the same communities. These results will be used to quantitate the amount of human disease being caused by the resistant and non-resistant pathogens in meat. One of the projects also address the study of the epidemiology of plasmid-medicated resistance to antimicrobials. The results from these projects, plus other relevant study results will be reviewed and evaluated by FDA. After that process has been completed, the Agency will be in a position to identify those studies which support or do not support various aspects of the issue. FDA's position will also be based on a large volume of scientific literature.

The schedule for completion and plans for necessary resources are presently under discussion by FDA management.

Dr. BRANDT. We will supply you with precisely where we stand, but we have been in the process of attempting to reexamine this, because there is a lot of concern about the development of resistant organisms, particularly to common antibiotics. It would be a significant problem for us.

Mr. BROWN. Anything important enough to get two articles in the New Yorker is going to have to get to your attention sooner or later.

Dr. BRANDT. Well, it has gotten to our attention. It is just that it is not in my immediate memory recall bank at the moment.

Mr. BROWN. Dr. Bentley?

Dr. BENTLEY. Mr. Chairman, I would say that this is a topic that is under a great deal of discussion in the agricultural community, especially in livestock prodcution systems. As you know, there is a great deal of work and concern about this in Europe. Of course, our people would be in communication with them. In fact, I know from the University of Illinois experience, we sent people to study in Europe to look at these kinds of questions. Unfortunately, where there are these kinds of developments it takes a lot of time to get precise information. It is not as easy as just assuming that these kinds of cross tolerances are being developed. So, that is being studied. I would say it is an area where there is some controversy in this country, and it will have to be continued to find an answer to it.

Mr. BROWN. Well, this will be controversial because it has an impact upon a very large pharmaceutical industry market. Obviously, it will be of major significance. But experience time after time has indicated that the solution to this is an adequate program of research which provides the facts to the public and to the policymakers. That is the point that we are getting at in connection with this whole hearing on nutrition research. This is closely related to nutrition. Nutrition, of course, is closely related to human health. I have been pursuing, as long as I have been in the Congress, the need for, for example, improved epidemiological studies. As long as I can recall, I have been told that we don't have adequate epidemiology data. You can verify whether that has improved, Dr. Brandt, but without consistent long-range epidemiological studies in which these kinds of problems would be one of the issues, I think we are probably not going to be able to benefit from long-range nutritional research to the extent that we could.

My fundamental concern has been with the adequacy and direction of the fundamental research that we are doing here. Whenever I see glaring weaknesses, I try to make an impact on correcting it.

How is the state of epidemiological research these days?

Dr. BRANDT. I think there are three sort of categories of epidemiological research, as I would put it. One has to do with the surveillance operation, to try to maintain surveillance. For example, during this past year, we have now increased the pediatric surveillance through the CDC to go up to, I believe, it is 33 States to survey and to maintain a surveillance system for low income children which is a way of attempting to maintain the kind of data base that you are talking about.

Second, or what I would call the sort of short-term kinds of epidemiologic problems that are aimed either at evaluating some intervention process on the one hand or trying to look at short-term changes. Clearly, throughout the NIH, there are a number of such projects that involve nutrition either directly or indirectly. The MRFIT [multiple risk factor intervention trial] study which took 7 years to complete demonstrated, it seemed to me, quite clearly again that by dietary manipulation, et cetera, one could in fact reduce the risk of a coronary event. It was more than just heart attacks.

Then, there is the long-term problem. I think the long-term is clearly a deficient area. I do not think, for example, that we fully understand the impact of dietary nutritional intake in children upon their susceptibility to chronic illness as adults. I don't think we fully understand the impact of nutritional status as one goes through pubertal, teenage years on chronic disease, and we have a population that is going to live longer. By living longer, we are going to see more and more the impact of early nutritional status upon disease.

You were talking about calcium, and it just so happens that somebody hands me two charts having to do with calcium.

Mr. BROWN. Yes, we had those earlier.

Dr. BRANDT. You got those earlier. OK. It clearly demonstrates the marked difference between men and women. Only up until about the age of 9 do typical women in this country get an adequate calcium intake while men tend to exceed it up until about 65 years of age before they begin to drop off.

I think trying to understand those mechanisms and trying to initiate the kind of long-term epidemological research that is required is something that we have not resolved at the moment.

There are some long-term studies, the Framingham study. Dr. Feinlieb is the person who designed it and has analyzed it. It has now been going on for over 20 years. Certainly, nutrition was one of the aspects of that particular study. There are some isolated, large, good, solid studies, but there is nothing that I know of that is really following people for a long, long time, looking at nutritional status, looking at changes in nutritional status based upon dietary or other kinds of changes. I would certainly agree with you that that is a desirable goal to shoot for.

Mr. **Brown**. Dr. Brandt, that is what kicked off the questions about osteoporosis. You cannot make a good finding about why females over the age of 65 are so prone to osteoporosis unless you know something about their calcium intake in adolescence, probably. That means the need, as you have indicated, for long-term epidemiology. It also means the need for long-term nutrition intake studies as a part of that epidemiology. That is why we are harping at the importance of adequate and timely completion of some of these monitoring studies. It is not just because we love monitoring studies. We think it is related to a major problem of public health in this country, not just that particular problem, but there is a multitude of problems it is related to. We can't begin to understand those.

When we, in a different setting, bring in people to discuss the health of the country, they are going to say, well, we don't have adequate epidemiological or nutrition monitoring studies, and then we are back in your lap again.

Dr. **Brandt**. The HANES I followup study, which will be getting underway, and we were discussing that a little bit ago, in 1987 or 1988 will answer some of that over a 10-year period. But I suspect the status of nutrition as a science has changed really dramatically. Our ability to measure nutrients, our ability to understand the interrelationship of these nutrients and so forth is growing all the time so we will be able to better assess the significance of all of these things as our understanding develops.

I think that the kinds of studies that you are talking about are clearly important, but they are important only if we can begin to have enough complete understanding of what to measure, when to measure it, how to measure it over a long period of time. Now, I would just point out with respect to the timeliness, a 30- or 40-year planned study is not timely, but it does give us perhaps, at intervals along the way, some possibilities.

In addition, if I could just point out a few other things that I think have been accomplished just in the past year with respect to some of these activities. In the first place, we now will have this 5-year plan for research that all 10 agencies of the Federal Government are in the process of reviewing. It will be sent to the Congress for your review and will have outside review, so that we can begin to look at where the real deficiencies are in the research plan and make some changes along that way.

We have this joint nutrition evaluation monitoring committee which has now met. The report is being written for the first year.

It will give us, again, another source of information from the outside. All that has been accomplished.

We now have the Human Nutrition Research Information System operation, with 3,200, nearly 3,300 research projects in that system. That is coming along.

We have increased the surveillance activities.

So, I think there is some progress headed in the way that you are talking about. We also have made the HANES and the NFCS [Nationwide Food Consumption Survey] using common data formats, common definitions, other steps that will make that much more reasonable. We have asked for review by the National Academy of Sciences. We have had a users conference bringing outside users together to comment on that.

In my view, as you will probably point out to me, this is my fourth time before this committee, but I really believe that there has been significant progress made in the past. Since 1981 when I was first here to talk about two totally separate departments that were going their own way, completely independent of each other. That is no longer happening. I really believe that we are rolling, and I fully understand that you will and should continue to encourage us to move faster, and we will respond to that.

Mr. Brown. You think our expectations are just a little too high in wanting a committee that we asked to be set up 4 years ago to not have to wait 2 years before its first meeting. I gather that was due to OMB's strictures more than——

Dr. Brandt. Well, it is certainly due to the provisions of the Federal Advisory Committee Act and the whole process for clearance which is, I think one could say, awkward.

Mr. Brown. All right.

Mr. MacKay. Mr. Chairman?

Mr. Brown. Yes; I recognize you again.

Mr. MacKay. I won't take too long.

Mr. Brown. I want you to get your best shot in. [Laughter.]

This is his legislation you are criticizing.

Mr. MacKay. I would like to just express frustration, not in an adversarial way. I realize there are actors who are not in this room who have had a great deal to do with your ability to respond. You are making progress, but you are starting from a base that is so woefully inadequate, in spite of what we are beginning to see about the centrality of nutrition, that if you keep making progress at this rate, we are going to be worse off every year that goes by.

Last year we talked about how much of your research budget is going into nutrition research. I was surprised when the answer—it wasn't exactly clear—but it was somewhere in the 3 or 4 or 5 percent. As long as you are criticizing my cumbersome procedure, I consider the one you have now to be something out of the Wizard of Oz. I am expecting you, in your 5-year plan, to come up with something that reflects the fact that you are changing priorities. If you are not getting enough money, I am expecting, in your 5-year plan, to see that you are cutting out something you have been doing in order to put some money into human nutrition research. And I don't think that the priority that has traditionally been given to producing more per acre is an appropriate priority.

I think the lack of epidemiological studies is an indictment. I heard a presentation Sunday at a conference on the future of health care where a man who specializes in epidemiological studies was complaining that he can't get funded. What he is studying is the small area of variations in surgical procedures. It is a very interesting thing which shows that in areas like tonsilectomies, one town, one community will do five times as many as the next, and there is no variation at all in health care. In prostectomies—I am learning that word—the variation is more than 5 to 1. It turns out, apparently, that the people who have them don't live as long as the people who don't have them.

Now, that information is incredibly important to us if we are ever going to start talking about affecting people's attitudes toward health care, and you are the only people I know of that we can look to for that kind of information. And when you come in year after year and say we have it together folks, we are sure doing better than we did last, and maybe we will get this year's report to you next year, I am kind of frustrated, I have to tell you.

There ought to be some way that we could deal with this in a less adversarial way. If you double the priority, you will get up to 6 percent. I don't think that is enough.

Dr. Brandt. First, with respect to the tonsilectomy, prostectomy issue, I would say that there has been a lot of research done on that and a lot of epidemiological research. I don't know who it was who was giving the talk, but I will be happy to send him a number of reprints.

Second, with respect to the nutrition research budget of the NIH; it was $164.3 million in fiscal year 1983. That is a fair amount of money. There are over 2,200 projects now underway, and that is direct research. That is not counting all the indirect costs, all the material that has a nutrition component.

I share your frustration. I am as frustrated as you are.

Mr. MacKay. I am just asking in terms of a percent of what we are doing in research whether the percentages reflect your statement of the importance of this issue. I am saying that things speak for themselves. They clearly don't in this case.

Dr. Brandt. I think you can't measure everything in dollars, for a lot of reasons, but I think that it is in fact being done. We are in the process right now of making awards for dietary intervention for the prevention of cancer. We set ourselves a goal of reducing by 50 percent the cancer mortality rate in this country by the year 2000—50 percent. That is a dramatic goal to set. A large part of that is based upon dietary interventions, dietary manipulations, and changes by the public to try to accomplish this.

So, I think that the kind of emphasis that is being put on in terms of the educational programs, in terms of the other activities, is pretty impressive, and I think that there are changes. One of the reasons I think you feel frustrated and the same reason I feel frustrated is because everybody sort of beats upon us a little bit because now we can do something and, therefore, there is always the push to do a little bit more. In the National Cancer Institute alone, in 1984, we are estimating $45 million to be spent on research in the relationship between diet and cancer and, specifically, how one can intervene dietarily to prevent cancer. I think that is a critical step forward.

There are countervailing forces to try to get the public to change. We have talked about some of those today. Not everybody is in sympathy with ways to decrease tooth decay—well known, documented, clearly specified activities that can be done, that are nutritional. Certainly, in our knowledge of diet and heart disease, there is clear information; yet there are other forces operating that give the public a mixed message. I don't know quite how to get around that problem. They have more money than the Federal Government to spend on research, I mean, on public education.

Mr. **MacKay**. Thank you, Mr. Chairman.

Mr. **Brown**. All right.

Sometimes I feel that the strategy of some of you in the executive branch is to hope that us old Congressmen will die and quit bothering you. This is instructive for you to recognize that young Congressmen are coming along who are going to continue to bug you all the time. [Laughter.]

You have been extremely helpful this morning. We wish you could have been more positive with regard to our legislation, but we recognize the circumstances here. Essentially, we are trying to indicate to you our continuing interest in your making progress in this very important area which I am sure you feel that you are doing, and I hope that we will come to feel the same way that you are.

We do very much appreciate your testimony, and we look forward to seeing you again.

Dr. **Brandt**. Thank you, sir.

Dr. **Bentley**. Thank you, Mr. Chairman. I would say that we share this concern about nutrition and all the issues you have there. There are lots of forces to overcome to get some of these questions answered and we are pledging our efforts to get it resolved.

Mr. **Brown**. Thank you very much.

The subcommittees will be adjourned.

[Whereupon, at 1:15 p.m., the subcommittees recessed, to reconvene subject to the call of the Chair.]

APPENDIX

United States
Department of
Agriculture

June 1984

Directory
Human Nutrition Activities

Food
& Fitness

The directory was prepared by the Subcommittee for Human Nutrition, Committee of Research and Education of the Secretary of Agriculture's Policy and Coordination Council.

The U.S. Department of Agriculture is an equal opportunity employer. Personnel are selected without regard to race, color, sex, national origin, marital status, age, nondisqualifying physical handicaps, political affiliation, or other nonmerit considerations.

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Directory
Human Nutrition Activities

USDA HUMAN NUTRITION ACTIVITIES

An important mission of the U.S. Department of Agriculture (USDA) is to assure that a sufficient, wholesome, and nutritious supply of food is available to all Americans at reasonable prices and to provide information by which all persons can select a healthful diet. Another mission of the USDA is to contribute to food and agricultural progress throughout the world. To accomplish these missions the USDA conducts a wide range of research, education, information, regulatory, and food assistance activities. These activities are distributed throughout several agencies within USDA and are coordinated through the Department's Subcommittee for Human Nutrition of the Research and Education Committee of the Secretary's Policy and Coordination Council. The Assistant Secretaries for the agencies conducting these activities are:

Assistant Secretary Mary C. Jarratt
Food and Consumer Services
207 W Administration Building

Assistant Secretary Orville G. Bentley
Science and Education
217 W Administration Building

Assistant Secretary C. W. McMillan
Marketing and Inspection Services
242 E Administration Building

Assistant Secretary William G. Lesher
Office of Economics
227 E Administration Building

Under Secretary Daniel G. Amstutz
International Affairs and Commodity Programs
212 A Administration Building

A brief description of some of these activities by Agency and the name of a contact person follow.

HUMAN NUTRITION RESEARCH

AGRICULTURAL RESEARCH SERVICE
Terry B. Kinney, Jr., Administrator

The mission of the Agricultural Research Service (ARS) is to implement research designed to produce new knowledge and technologies required to ensure continuing vitality of the Nation's food and agriculture enterprise. Promoting optimum health and well-being through improved nutrition is one of six major objectives of the ARS strategic program plan (U.S. Dept. Agr. Misc. Pub. 1429, January 1983). Four approaches to achieve this objective are identified.

- Define nutrient requirements at all stages of life.
- Determine the nutrient content of agricultural commodities and processed foods as eaten and establish the bioavailability of nutrients in these foods.
- Improve human nutrition status by making available techniques to assess the effectiveness of nutrition programs.
- Integrate knowledge of human nutritional needs into the agricultural/food system.

The ARS human nutrition research is conducted primarily at five separate Human Nutrition Research Centers and at Regional Utilization Laboratories. The centers maintain close communication with each other and the research programs are coordinated through the National Program Staff. Each center has a different research thrust and provides its unique contribution.

Contact: Gerald F. Combs, Assistant Deputy Administrator for
Human Nutrition - 301/344-3216

Beltsville Human Nutrition Research Center, Beltsville, Md. The history of the Beltsville Human Nutrition Research Center can be traced to 1894, when Congress authorized the Office of Experimental Stations with headquarters at Wesleyan University in Middletown, Conn., to carry out human nutrition investigations. The headquarters was moved to Washington, D.C., in 1906, and to Beltsville, Md., in 1941. The mission of the center is to define human requirements for the essential nutrients-protein, carbohydrates, lipids, vitamins, and minerals for optimal health and performance and to identify, through study of their nutrient composition, the foods that meet those nutritional requirements. This center also is concerned about the metabolic role of nutrients and with understanding the many interactions of nutrients with other food components and the effects on bioavailability. Emphasis at this center is on the nutritional requirements of adults and on development of food composition analysis methodology.

Contact: Walter Mertz, Director - 301/344-2157

Children's Nutrition Research Center at Baylor College of Medicine, Houston, Tex. The Children's Nutrition Research Center (CNRC), established in 1979 in response to Congressional mandate, is the only center that deals exclusively with research on nutrient needs and nutritional status of mothers, infants, and children. Its mission is to define the nutritional requirement that will ensure optimal nutritional status in pregnant and lactating women and in infants and children through adolescence. Emphasis is being given to protein and energy requirements of women for pregnancy and lactation and of infants and children for growth. Noninvasive methods involving stable nonradioactive isotopes are used as tracers of individual nutrients to determine their absorption and utilization.

Contact: Buford Nichols, Director - 713/799-6006

Grand Forks Human Nutrition Research Center, Grand Forks, N. Dak. The mission of the Grand Forks Human Nutrition Research Center, established in 1963, is to develop recommendations for nutrient intakes in humans and to identify useful nutrient forms, with particular emphasis on mineral requirements. Although the main thrust of research is directed toward the role of trace elements in nutrition, other essential nutrients (for example, protein, carbohydrate, and fat) are not overlooked. Those nutrients are studied in collaboration with several other scientists at various universities and at other ARS locations.

Contact: Leslie Klevay, Acting Director - 701/775-8353

Human Nutrition Research Center on Aging at Tufts University, Boston, Mass. The Human Nutrition Research Center on Aging was established in FY 1980 in response to the mandate of Congress. Its mission is to determine the nutrient needs of the elderly and the relationship of dietary factors to the aging process. Investigations are carried out to determine the influence of diet on the onset and course of aging and the manner in which diet can delay or prevent the onset of degenerative conditions associated with aging.

Contact: Harold Sandstead, Director - 617/956-0302

Western Human Nutrition Research Center, the Presidio of San Francisco, Calif. The Western Human Nutrition Research Center was established on April 6, 1980, when Congress ordered the transfer of the nutrition research program of the Army, located at Letterman Army Institute of Research, Presidio of San Francisco, to the USDA. The mission of the center is to improve methods for assessing human nutritional status and to study the factors that lead to malnutrition. This center also conducts studies on human nutritional requirements and on factors that influence them, with emphasis on vitamin requirements.

Contact: James M. Iacono, Director - 415/556-9899

Plant, Soil, and Nutrition Laboratory, Ithaca, N.Y. This laboratory was established as a National Laboratory to investigate the cause and effect relationships between plants, soil, and nutrition. Implicit in this mission is that the laboratory should study the contributions of the soil to the nutritive value of food plants. Of special interest has been the effect of mineral supply on plant constituents such as amino acids and vitamins, mineral forms in plants, transport through the plant, and availability to man and animals. Effects on toxic substances in plants also are studied.

Contact: Darrell Van Campen, Laboratory Director -
607/256-5480

Regional Laboratories. Since adequate human nutrition translates directly to the need for an ample supply of wholesome, high-quality foods and food products, it is important that other parts of the food chain be concerned about solutions to nationally important food and nutrition problems. Accordingly, other ARS research centers are involved in research important to achieving the human nutrition objective. These include the Eastern Regional Regional Research Center, Philadelphia, Pa.; Northern Regional Research Center, Peoria, Ill.; Southern Regional Research Center, New Orleans, La.; Western Regional Research Center, Berkeley, Calif., and the Richard Russell Research Center, Athens, Ga. These centers focus on specific areas of research directed at food production, food processing, food storage, distribution and marketing, and food safety.

Contact: Gerald F. Combs, Assistant Deputy
Administrator for Human Nutrition -
301/344-3216

COOPERATIVE STATE RESEARCH SERVICE

J. Patrick Jordan, Administrator

The Cooperative State Research Service (CSRS) is responsible for administering and coordinating funds appropriated under the Hatch Act and the 1977 Food and Agriculture Act to 54 State agricultural experiment stations, to 16 "1890 land-grant schools" and to Tuskegee Institute to carry out research on food and agricultural issues including human nutrition research. Matching funds, often in excess of the amount of Federal funds, are provided by the States. These projects in the area of nutrition often focus heavily on nutrient bioavailability and the composition of foods, determination of nutrient requirements, metabolic functions of nutrients and interactions, dietary and nutritional status of special populations, dietary patterns, and alterations in the nutritional value of food supply resulting from changes in production, processing, or marketing practices.

Contact: Mary Heltsley, Home Economist, Natural
Resources, Food and Social Sciences -
202/447-3426

ECONOMIC RESEARCH SERVICE
John E. Lee, Jr., Administrator

The Economic Research Service (ERS) conducts a wide variety of research and analysis on food and agricultural issues, some of which relate to human nutrition. Research is conducted on food consumption patterns and their determinants, changes in dietary practices, and the effects of government policies and socioeconomic factors on food consumption. These studies use data from existing surveys such as the Bureau of Labor Statistics' (BLS) Continuing Consumer Expenditure Survey, USDA's Survey of Food Intake of Individuals and Survey of Household Food Consumption, and the Department of Health and Human Services' (DHHS) Health and Nutrition Examination Survey.

Food Consumption Patterns. ERS develops estimates of annual per capita food consumption used by nutritionists in USDA's Human Nutrition Information Service (HNIS) in estimating average per capita nutrient availability. This information is developed in ERS through analyses of the supply and utilization of agricultural products.

Contact: Karen Bunch, Agricultural Economist -
202/447-6860

Determinants of Food Consumption and Dietary Practices. ERS conducts research on factors that influence consumer demand for major food products and individual food items. Socioeconomic factors that are analyzed include regional population shifts, increasing life expectancy, rising incomes, declining birth rates, and health and nutrition concerns. This information is useful for projecting consumer demand as population characteristics change as well as aid in identifying population subsets whose intake of certain foods is high or low relative to the national average. In FY 1984, ERS will conduct three studies related to food consumption and demand:

- Improved methodology of forecasting per capita food consumption.
- Determinants of expenditures for food at home and away from home.
- Frequency of purchase of selected foods and household food expenditures.

Contact: Richard C. Haidacher, Leader, Food Demand
Research Section - 202/447-9200

Effects of Government Policy on Food Consumption and Human Nutrition. An ongoing research activity for ERS is analysis of the effects of alternative Government policies, especially food policies, on both producers and consumers. This research provides insight as to the effects of existing and alternative food and agricultural policies on food consumption, dietary levels, and the nutritional status of target populations. In FY 1984, ERS will conduct four major studies on the implications of the food assistance programs for food demand. The specific studies include:

- Analysis of alternatives to the National School Lunch Program using an econometric framework to quantify the effects of USDA commodity donations and purchase programs.
- Effects of eliminating the Food Stamp Program's purchase requirement on farm income of producers of meat and dairy products.
- Effects of the 1981 Agriculture and Food Act and the 1981 and 1982 Omnibus Budget Reconciliation Acts on food expenditures of low-income households.
- Analysis of the effects of the USDA food programs on household food supplies.

Contact: Clark Burbee, Agricultural Economist, Food
Policy Section - 202/447-8967

HUMAN NUTRITION INFORMATION SERVICE
Isabel Wolf, Administrator

The Human Nutrition Information Service (HNIS) conducts and interprets applied research in food and nutrition (1) to improve professional and public understanding of the nutritive value of foods and of the nutritional adequacy of diets and food supplies and (2) to develop other knowledge needed to improve the quality of diets. Research activities are in four general areas:

Nutrient Data Research. HNIS provides accurate, up to date, and comprehensive information on the nutrient composition of all foods important in American diets. This involves gathering and evaluating nutrient data from literature and from Government, university, industry, and other laboratories, and generating data not found elsewhere through sponsorship of extramural research. Data are processed through a computerized National Nutrient Data Bank and disseminated in machine-readable and published form. The Agency also cooperates with other countries and international organizations in the development of information on the nutrient content of foods.

Contact: Frank N. Hepburn, Chief, Nutrient Data
Research Branch, Consumer Nutrition Division
- 301/436-8491

Food Consumption Research. HNIS plans, coordinates, oversees, and analyzes information from the Nationwide Food Consumption Survey (NFCS), related supplemental surveys, and methodological research for these surveys. Information is provided in forms readily applicable to multiple policy and program uses relating to agriculture, food assistance intervention, food quality and regulation, and nutrition education. NFCS provides comprehensive information on household food use, food cost, and socioeconomic variables as well as on food intakes and dietary practices of individual household members. HNIS staff and staff from the Department of Health and Human Services (DHHS) jointly develop and implement the National Nutrition Monitoring System (NNMS). As part of the system, HNIS will initiate a Continuing Survey of Intakes of Individuals in 1985. This survey is designed to monitor the nutritional quality of diets of the population and of subpopulations at nutritional risk on a timely basis.

Contact: Robert L. Rizek, Director, Consumer
Nutrition Division - 301/436-8457

Diet Appraisal Research. HNIS conducts and interprets food and nutrition research to solve practical problems faced by Government policymakers, educators, health professionals, and consumers. Examples are:

- Estimate the nutrient content of the national food supply each year to show trends in nutrient availability and food sources of nutrients.

- Keep current the USDA Family Food Plans and estimate costs monthly. The thrifty food plan is the legal standard for benefits in the Food Stamp Program.
- Study factors affecting diets, such as the use of fortified foods, the use of convenience foods, eating away from home, and participation in food assistance programs.
- Study food consumption patterns, food habits, and dietary levels of macronutrients, vitamins, minerals, and other dietary components to identify areas of need for food guidance.

Contact: Susan O. Welsh, Chief, Food and Diet
Research Branch, Consumer Nutrition Division
- 301/436-8470.

Guidance and Education Research. HNIS develops and evaluates nutrition materials and techniques for increasing nutrition knowledge of professionals and consumers and improving food selection behavior. Examples are:

- Develop information on dietary guidelines, food selection, food money management and food preparation in homes and institutions to help the public and special target audiences achieve nutritious and satisfying diets they can afford.
- Design and evaluate computerized systems and data bases to assist nutrition professionals in obtaining nutrition information they require.
- Develop nutrition education approaches for low-literacy groups.

Contact: Betty B. Peterkin, Associate Administrator -
301/436-7725

OFFICE OF GRANTS AND PROGRAM SYSTEMS

E. L. Kendrick, Administrator

Competitive Research Grants Office. The Competitive Research Grants Office (CRGO) was established in 1978 to implement a section of the Food and Agriculture Act of 1977. CRGO awards competitive grants to support basic research in human nutrition with emphasis on determining nutrient requirements. The objective is to support creative research that fills gaps in the knowledge of nutrient requirements, bioavailability, the interrelationships of nutrients, and the nutritional value of foods consumed in the United States. Special attention is given to the study of trace constitutents of foods and their effect in healthy humans. According to the Congressional mandate, awards are based on peer reviews and the program is open to applicants from the broadest possible spectrum of research institutions in the United States.

Contact: Anne Holiday Schauer, Associate Chief -
202/475-5022

Small Business Innovation Research Program. Under the authority of the Small Business Innovation Development Act of 1982 (Public Law 97-219), the U.S. Department of Agriculture awards research grants to small business firms in selected areas of research including food science and human nutrition. Grants are awarded competitively based on technical and scientific merits. The objectives of SBIR program include stimulating technological innovation in the private sector, strengthening the role of small businesses in meeting Federal research and development needs, increasing private sector commercialization of innovations derived from USDA-supported research, and fostering and encouraging minority and disadvantaged participation in technological innovation. The scope of food science and nutrition research areas ranges from basic biochemistry, chemistry, and toxicology to food processing and economic studies in market development and analysis.

Contact: Wayne K. Murphey, Acting SBIR Coordinator
- 202/447-2044

OFFICE OF INTERNATIONAL COOPERATION AND DEVELOPMENT
Joan S. Wallace, Administrator

The Office of International Cooperation and Development (OICD) supports international research projects in the United States and overseas on food and agriculture, including human nutrition. Using funds from the Agency for international development and international organizations, OICD also provides technical assistance and training to developing countries. Some of those efforts focus on human nutrition.

OICD's human nutrition activities in developing countries include (1) applied research and technical assistance to increase the availability of nutritious and inexpensive processed foods, such as weaning food supplements and fortified foods; (2) help in making food consumption and nutrition issues a part of agricultural programs and policies and; and (3) administration of foreign agricultural research paid for with U.S.-owned foreign currencies. Some 36 grants have been made for overseas research on human nutrition.

Contact: Paul R. Crowley, Director, Nutrition
and Agribusiness Group - 202/447-9206

INFORMATION
AND
EDUCATION

AGRICULTURAL RESEARCH SERVICE
Terry B. Kinney, Jr., Administrator

The Higher Education Programs (HEP) staff awards institutional grants on a competitive basis to support graduate training in food science and human nutrition at the predoctoral level. This Competitive Graduate Fellowship Program was initiated in FY 1984 to increase the supply of professionally trained scientists with expertise in food science and human nutrition and to provide for the recruitment of outstanding masters' and doctoral students in these areas.

The supply of professionally trained scientists with expertise in food science and human nutrition is very low and the unmet demand for their services is high. Many members of the scientific community have repeatedly warned of a shortage of scientists capable of sound food and nutrition research and education.

Contact: K. Jane Coulter, Director, Higher Education
Programs - 202/447-7854

EXTENSION SERVICE
Mary Nell Greenwood, Administrator

Extension Service (ES) has a major responsibility for diffusing research-based nutrition, food science, and food safety principles and concepts through the Cooperative Extension System (CES). Over 25 percent of all resources allocated to Home Economics is directed to human food and nutrition education programs. Extension professionals teach clientele improved decisionmaking and resource management; assist them to gain knowledge and skills; and alert them to pertinent applied technology and available research findings. Paraprofessional aides are employed in Extension's Expanded Food and Nutrition Education Program to teach low-income families how to use limited food resources to improve family diets. CES education programs for youth and adults promote better health through knowledge of nutrition and prevention of nutrition related health problems. The entire program focus is aimed at educating the U.S. population at the grassroots level. Professionals, paraprofessionals, and trained volunteers design and deliver food and nutrition programs for local needs.

Program priorities are:

- Improving nutrition practices through economical use of local food purchases, preparation, preservation, and storage.
- Identifying the main determinants of food selection at all socioeconomic levels and how dietary habits affect nutritional status.
- Using the best means of knowledge transfer to culturally and educationally diverse populations.
- Maintaining readily available, objective and credible data based on research relative to human nutrition, food safety, and health.

Contact: Ava D. Rodgers, Deputy Administrator, Home Economics and Human Nutrition - 202/447-2908

HUMAN NUTRITION INFORMATION SERVICE
Isabel Wolf, Administrator

The Human Nutrition Information Service (HNIS) provides information for professionals and consumers on nutrition topics, such as the nutritive value of foods, food money management, food guides and dietary guidelines for food selection and the storage and preparation of food. Examples of current activities are:

- Update existing publications on nutrition topics and develop new ones to meet current information needs. Publications are available from the Government Printing Office.
- Coordinate an interagency "Making Food Dollars Count" campaign directed especially toward community leaders working with low-income households.
- Provide technical consultation on a video tape "Inside/Out: The Story of Food and Fitness" now being distributed nationwide.
- Sponsor with DHHS a national teleconference for health professionals on infant and maternal health.
- Cooperate with the private sector in the preparation of materials for the public: A food-buying tips leaflet with the Food Marketing Institute and a six-session nutrition course with the American Red Cross. The course will be introduced in chapters nationwide in 1984.

- Sponsor the Dietary Guidelines Advisory Committee, a group of nine nutrition scientists who are to make recommendations to USDA and DHHS about the Dietary Guidelines for Americans, published in 1980.

Contact: Betty B. Peterkin, Associate Administrator
- 301/436-7725

NATIONAL AGRICULTURAL LIBRARY
Joseph H. Howard, Director

The National Agricultural Library maintains a Food and Nutrition Information Center (FNIC) with its 29,000 volume collection. This Center constitutes a major subfile of AGRICOLA, the library's bibliographic online database. The scope of the collection is constantly expanded to assure coverage of all aspects of food and nutrition. FNIC provides lending services of both print and audiovisual material to the following groups of patrons:

The U.S. Congress
Federal Government agencies
State government agencies
Libraries, information centers
Universities, colleges
Cooperative Extension
Research institutions
Professional societies
School districts and individual schools, including food service personnel and teachers
Nutrition Education and Training Program staffs
Head Start personnel
Day care personnel
Supplemental Food Program for Women, Infants and Children (WIC) and Commodity Supplemental Food (CSF) Program personnel

Reference and referral services including computer online retrieval of information are available to professionals and other interested persons.

Contact: Robyn C. Frank, Head, Food and Nutrition Information Center - 301/344-3719

FOOD ASSISTANCE PROGRAMS

FOOD AND NUTRITION SERVICE
Robert E. Leard, Administrator

The mission of the Food and Nutrition Service (FNS) is to provide access to a more nutritious diet for persons with low incomes and to encourage better eating patterns among the Nation's children. The 10 programs that FNS administers and contacts for more detailed information follow.

Food Stamp Program. The Food Stamp Program helps needy households purchase the foods they need for good health. Participating families get coupons free of charge, which they exchange for food at authorized stores. The value of the coupon depends on a household's size and financial circumstances. Food stamps supplement what a family spends on food.

People apply for food stamps at their local welfare or social services office. In addition to qualifying on the basis of income, families and individuals must meet work registration requirements, maximum resource requirements, and certain citizenship and residency requirements.

Contact: Virgil Conrad, Deputy Administrator, Family Nutrition Programs - 703/756-3026

Special Nutrition Programs.

Contact: George Braley, Deputy Administrator, Special Nutrition Programs - 703/756-3052

1. Special Supplemental Food Program for Women, Infants, and Children

The Special Supplemental Food Program is commonly known as WIC. It provides nutritious food supplements to pregnant, breast feeding, and postpartum women, as well as to infants and children up to the fifth birthday. WIC is operated by local health clinics and other authorized health facilities. WIC benefits are currently provided by approximately 7,100 clinics throughout the country.

To qualify, mothers and children must be individually certified as "nutrition risks" because of dietary need and inadequate income. Each participating mother or child receives individually prescribed packages of foods high in protein, iron, calcium, vitamin A, and vitamin C.

Depending on the age and nutrition needs of the woman, infant, or child, the package includes such foods as iron-fortified cereal, eggs, juice, and either milk or fortified infant formula or cheese. In some areas, peanut butter or dry beans or peas may also be provided. Participants get nutrition education along with the supplemental foods.

WIC clinics provide supplemental foods in one of three ways. They obtain foods from local firms and distribute them directly; they arrange for home delivery; or they give mothers vouchers to exchange for specified items at authorized grocery stores. Most clinics give participants vouchers.

Contact: Barbara P. Sandoval, Director, Supplemental
Food Programs Division - 703/756-3746

2. Commodity Supplemental Food Program

The Commodity Supplemental Food Program (CSFP) distributes USDA-donated foods to low-income women and children certified by participating local health agencies. Those eligible include infants, children up to age 6, and pregnant or breast-feeding women vulnerable to malnutrition.

To take part in the CSFP, women and children must qualify for benefits under an existing Federal, State, or local food, health or welfare program for low-income people. Some State agencies also require that participants be determined to be at nutritional risk by a doctor or staff person at the local agency.

Participating women and children get prescribed food items, which they pick up at a distribution facility. They also receive instruction on how to prepare foods and practical lessons on nutrition.

The CSFP is currently operated by 23 local health agencies in 12 States.

Contact: Barbara P. Sandoval, Director,
Supplemental Food Programs
Division - 703/756-3746

3. Food Distribution Programs

Through the Food Distribution Program, USDA purchases surplus foods from U.S. markets and distributes them to State agencies for use by eligible local agencies. The foods go to schools and institutions participating in the child nutrition programs, to nutrition programs for the elderly, to needy families on Indian reservations, and to hospitals and prisons. The foods are also used to help victims of natural disasters. The largest percentage of USDA-donated foods goes to schools. Currently, schools get 70 percent of the foods donated by USDA.

Contact: Joseph Shepherd, Director, Food
Distribution Division - 703/756-3680

4. Child Care Food Program

The Child Care Food Program helps child care facilities and institutions serve nutritious meals and snacks to preschool and school-aged children. To participate, facilities and institutions must be licensed or approved to provide child care services. They must also meet certain other eligibility requirements.

The program operates in nonresidential day care centers, settlement houses, outside-school-hours care centers, family day care homes, institutions providing day care for handicapped children, and others. Participating facilities and institutions get cash assistance, USDA-donated foods, and technical guidance. In child care centers, the amount of cash assistance varies according to the family size and income of children served. In day care homes, the amount of cash assistance is based on a food service payment rate.

Contact: Samuel Bauer, Director, Child Nutrition
Division - 703/756-3590

5. Summer Food Service Program

The Summer Food Service Program for Children helps communities serve meals to needy children when school is not in session. The program is sponsored by public or private nonprofit school food authorities or local, municipal, county, or State governments. Public or private nonprofit residential camps also may be sponsors.

The program operates in areas in which at least 50 percent of the children served by the site meet the income criteria for free and reduced-price school meals. USDA reimburses sponsors for operating costs of food services up to a specified maximum rate for each meal served. Higher administrative rates are provided to rural area to encourage their participation in the program. In addition, sponsors receive some reimbursement for planning, operating, and supervising expenses.

Contact: Samuel Bauer, Director, Child Nutrition Division -
703/756-3590

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6. National School Lunch and School Breakfast Programs

The National School Lunch and School Breakfast Programs help schools serve nourishing low-cost meals to children. In addition to cash assistance, participating schools get USDA-donated foods and technical guidance. Payments to schools are higher for meals served to children who qualify on the basis of family size and income for free or reduced-price meals.

Contact: Samuel Bauer, Director, Child Nutrition
Division - 703/756-3590

7. Special Milk Program

The Special Milk Program for Children makes it possible for all children attending a participating school or institution to purchase milk at a reduced price or, if they are eligible, receive it free. Reimbursement is provided for each half-pint of milk served under the program. Schools and institutions that participate in other Federal-State child nutrition programs may not participate in the Special Milk Program for Children.

Contact: Samuel Bauer, Director, Child Nutrition
Division - 703/756-3590

8. Nutrition Education and Training Program

Under the Nutrition Education and Training Program, funds are granted to the States for the dissemination of nutrition information to children and for inservice training of teachers and food service personnel. The program's major goals are:

- To encourage good eating habits and teach children the relationship between food and health.
- To train food service personnel in nutrition and food service management and to encourage the use of the cafeteria as an environment for learning about food and nutrition.
- To instruct educators in nutrition education and in the use of the cafeteria as a learning laboratory.
- To develop appropriate educational materials and curricula.

The program is for all children in public and private schools and in residential and nonresidential child care institutions. Through the program, the Department of Agriculture hopes to lay a strong foundation for community involvement in nutrition education and to contribute to general consumer awareness of the relationship between proper nutrition and health.

Contact: Alberta Frost, Director, Nutrition and Technical
Services Division - 703/756-3585

Program Research and Evaluation. The Food and Nutrition Service conducts research on, and evaluation of, its programs.

Contact: Michael J. Wargo, Director, Program Evaluation
Staff, Office of Analysis and Evaluation -
703/756-3117

Nutrition and Technical Services. The Nutrition and Technical Services Division (NTSD) provides technical support to FNS programs in the areas of nutrition science, nutrition education, food service management, and food science/technology. Nutritionists and food technologists at the Agency headquarters and regional offices provide coordinated assistance to State and local agencies administering FNS programs. NTSD also participates in cooperative activities with related agencies, educational organizations, industry and other groups. Brief descriptions of major areas of responsibility follow:

1. Nutrition Science

Assess the nutritional contribution of food packages offered in the FNS programs through its computerized Food Package Monitoring System. NTSD also provides consultation to program divisions on current nutrition issues; for example, those pertaining to eligibility of foods for the food packages. Division staff make recommendations on policy issues which affect nutritional aspects of program administration.

2. Nutrition Education

Interpret and apply research findings to (a) provide consultation to Federal, State and local program staff and health professionals, (b) develop guidance materials for use by program staff, and (c) develop nutrition education publications for program personnel and participants. These materials address topics pertinent to the needs of program participants; for example, nutritional needs of pregnant teenagers, breast feeding, food buying for nutrition and economy, and adaptation of information for special populations such as native Americans and new immigrants.

3. Food Service Systems and Training

Develop regulations, issue papers, policy statements, and program aids governing meal pattern requirements and related food service issues in support of all child-feeding programs.

Develop, test, evaluate and provide technical assistance in all areas of food service management - menu planning, recipes, cooking yields, food purchasing, storage, preparation, service, sanitation, equipment, layout, merchandising, and human resource management.

4. Food Science and Technology

Provide technical assistance to the Child Nutrition Programs in all areas of human nutrition, food science, and food technology - food crediting, labeling, additives, processing, fortification, engineered foods, effects of food preparation, service and storage on nutrient retention, and food quality and safety. Administer the voluntary Child Nutrition (CN) Labeling Program.

Contact: Alberta Frost, Director, Nutrition and Technical Services Division - 703/756-3585.

FOOD
INSPECTION,
MARKETING,
AND
PROCUREMENT

AGRICULTURAL MARKETING SERVICE

Vern F. Highley, Administrator

The Agricultural Marketing Service (AMS) develops quality grade standards and provides voluntary grading services for meat, poultry, eggs, and dairy products. It has responsibility also for fruits and vegetables, cotton, tobacco, and livestock; administration of marketing regulatory programs, marketing agreements and orders, research and promotion orders; Federal-State marketing improvement programs, and purchasing of foods for USDA food assistance programs.

This last area of responsibility impacts upon human nutrition. AMS purchases all the food for the feeding programs. These include meat, poultry, eggs, fish, nuts, and fruits and vegetables. Consideration is given to nutrition in these purchases. The fat, salt, sugar, and additive content are factors in the purchase of commodities for all domestic-feeding programs. Fat content of ground beef no more than 22 percent, minimum added salt, and only lightly sweetened fruit products are considered. The specifications for these commodities are written in AMS.

Guidelines are based on information from ARS and industry. The goals are twofold and interrelated in this purchase program to cut down on waste and to assure palatability. A certain level of acceptance of the product must be considered to ensure consumption. If a product is unacceptable due to such factors as flavor, it will not be consumed, thereby impacting on the nutrition status of the population.

Contact: Edith H. Hogan, Assistant to Administrator,
202/447-4046 or Eddie F. Kimbrell, Deputy
Administrator, Commodity Services, 202/447-5231

AGRICULTURAL STABILIZATION AND CONSERVATION SERVICE
Everett Rank, Administrator

The Utilization Branch, Agricultural Stabilization and Conservation Service (ASCS), develops and maintains specifications for commodities procured by the Kansas City Commodity Office of ASCS that are intended for human consumption

Contact: Ronald L. Wilson, Chief, Utilization Branch,
Commodity Operations Division - 202/447-5647

FOOD SAFETY AND INSPECTION SERVICE
Donald L. Houston, Administrator

The Food Safety and Inspection Service (FSIS) safeguards safety and nutritional quality of meat, poultry, and their products through inspection and analysis and through establishment of standards, approval of labels, and monitoring of the industry for compliance with inspection laws.

Chemistry Division, Science Program. The Chemistry Division is responsible for developing the most economically feasible and improved analytical chemical methods with increased capacity, greater sensitivity, and accuracy to determine the presence of environmental contaminants and drug residues for inclusion in the ongoing Science Program. The staff also determines the presence of food additives and nutritional value of meat and poultry products. The impact of this responsibility is both national and international in its scope and significance since domestic and imported or exported meat and poultry products are analyzed. The Division:

- Manages the Accredited Laboratory Program designed to increase the effectiveness of the field inspection program; conducts a quality assurance program to assure continuous acceptable quality of analytical work.

- Participates in reviewing submitted technical information to assess its accuracy and validity. Provides professional development and training in existing and newly developed chemical methods and techniques.

- Participates with FDA to evaluate residue analytical procedures with each New Animal Drug Application (NADA).

- Conducts highly complex chemical analyses of approximately 4,000 samples of meat and poultry products per year.

Contact: R. L. Ellis, Director, Chemistry Division or G. R. Heavner, Deputy Director, Chemistry Division - 202/447-7623

Food Ingredient Assessment Division, Science Program. The Food Ingredient Assessment Division (FIAD) is responsible for providing analytical, consultative, and planning services in the areas of food ingredients, nutrition, and product safety. The Division also provides management for monitoring programs that assess ingredients and nutrients in meat and poultry products. The impact of the work performed by the Division is national and international in scope and significance, since the evaluations of ingredients, nonfood compounds and packaging materials used in official establishments involve imported, exported, and domestic meat and poultry products. The Division:

- Conducts food consumption studies and, with other Science Divisions, conducts evaluations of exposure and estimates of health and safety impacts of food ingredients, additives, and residues.

- Coordinates the formulation of FSIS nutrition policy, recommends necessary nutritional and food safety research, and serves as the FSIS information source on nutrition and product safety related subjects.

- Develops nutritional and food safety criteria for use in formulating FSIS policy, particularly for meat and poultry products.

- Conducts approximately 10,000 paper evaluations per year of packaging materials, chemical compounds, and direct and indirect food additives used for foods regulated by FSIS to determine if they meet established safety requirements. Evaluation of nonfood compounds and direct and indirect food additives prior to their use is mandatory.

Contact: D. D. Derr, Director, Food Ingredient
Assessment Division - 202/447-7680 or E. W.
Murphy, Deputy Director, Food Ingredient
Assessment Division - 202/447-7623

Standards and Labeling Division, Meat and Poultry Inspection Technical Services Program. The Standards and Labeling Division carries out the Department's label approval and auditing function for all labels that are used on federally inspected meat and poultry products. The Division reviews all complex labeling prior to its use on meat and poultry and monitors those labels that are approved in the field. The Division conducts reviews to assure that meat and poultry products are formulated with safe and suitable ingredients, that their labels are truthful and not misleading, and that those labels show all required information. Formal product standards are developed to specify meat content and/or usual ingredients of meat and poultry products when industry members or consumers show particular interest in increasing uniformity among products using the same product name. Development of rules to permit or restrict the uses of various food additives is the responsibility of this office. Other regulations in the food labeling area are also developed by the Division, and the Division provides support and advice relating to assigned activities of Codex Alimentarius.

Contact: R. G. Hibbert, Director, Standards and Labeling
Division - 202/447-6042, or Joseph [illegible],
Deputy Director, Standards and Labeling
Division - 202/447-4293.

For additional information about any of the preceding activities, please contact the respective person indicated.

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THE USDA

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USDA's Commitment to Nutrition in the 80's

U.S. Department of Agriculture continues its research, education, and food assistance functions to provide nutritious, economical food for families.

by JOHN R. BLOCK

The U.S. Department of Agriculture is a federal partner in America's food system. We are proud of that system, its achievements and goals for the future. Nutrition is a vital concern. I'd like to describe some of the ways USDA is addressing nutrition in the 80's.

American consumers have access to more high quality, moderately priced, safe food than any other people in the world. This results from a complex but extremely successful interaction of private and public sectors. The research, education and regulatory functions of the federal government and the innovative, technological expertise of industry form a partnership that means better nutrition for all.

We know more now about human nutrient needs than ever before. However, more needs to be learned. Some Americans receive inadequate nutrition, others overeat. Reasons vary from a lack of income, insufficient knowledge about nutrition and community food resources, to an inability to take diet responsibility. In some cases, inaccurate nutrition information has caused problems.

Our abundance of high quality foodstuffs has alleviated hunger and malnutrition throughout the world. Abundance is not enough, however. Storage, shipment, timely distribution, and sufficient money to purchase adequate food represent major challenges as nations try to meet worldwide nutrition problems. Local customs, beliefs and lack of nutrition knowledge continue to be problems.

RESEARCH

Congress, in the Food and Agriculture Act of 1977[1], named the Department of Agriculture as the lead agency in nutrition research (except for the biomedical aspects of human nutrition concerned with diagnosis or treatment of disease), extension, and teaching in the food and agricultural sciences. USDA research must address nutrition needs, especially sound eating patterns that relate to the life cycle, and the relationship between food and fitness.

USDA conducts human nutrition research to find ways to promote optimum human health and well-being through improved nutrition and family resource management. Nutrition is a key factor in achievement of the human genetic potential.

Severe human nutritional deficiencies are not common in the United States. Mild deficiencies and marginal states, however, do exist, but the thresholds at which they affect genetic potentials are not well-defined. Present methods of measuring physiological functions are insensitive. The range of functions considered "normal" is often wide. USDA is attempting to define normality in terms of physiologic performance and biochemical indices.

Deficiency risks are greatest in humans during intrauterine and early postnatal life. This justifies extra concern for pregnant and lactating women, infants, and children. Nutritional deficiencies during rapid growth periods may cause poorly reversible injury to organs such as the brain. The roles of

Mr. Block is Secretary of Agriculture.

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[1] Food and Agriculture Act of 1977, Public Law 95-113, September 29, 1977, 91 Stat. 913 (7 USC 1281 note). It has been amended by the 1981 Farm Bill.

PHOTO COURTESY, USDA

John R. Block, of Galesburg, Illinois, is Secretary of Agriculture. After attending school in his home state, he received an appointment to the United States Military Academy at West Point, New York in 1957, served three years as an infantry officer until he returned to manage the family farm in central Illinois in 1960. When he took over, the farm covered 300 acres and produced 200 hogs. When he left for duty in Washington 21 years later, the Block farm covered 3000 acres and produced 6000 hogs yearly. On the way up he received all sorts of honors from his peers in midwestern farming but the one he is said to have liked most is that given him by the American Farm Bureau Federation. It designated the young hog farmer as a "Future Farm Leader of America." In fact, two weeks after President Reagan selected him to become Secretary of Agriculture, Mr. Block flew to New Orleans and addressed (using notes written on the back of an envelope) an overwhelmed, ecstatic audience of more than 3000 AFBF members in the Astrodome. At one point, in talking about the government telling people what to eat (dietary guidelines, etc.), he got a standing, thundering ovation when he declared ". . . and, furthermore, I'm going to take the federal government out of the kitchen!" He brought down the house.

PHOTO COURTESY, USDA

Richard E. Lyng, Modesto, California, is Deputy Secretary of Agriculture. The position is new with the administration and it was created to provide a spot at the top where the considerable talents of Mr. Lyng could be utilized to the fullest . . . sort of a Chief Operating Officer of USDA. Mr. Lyng is a native of California, a graduate of the University of Notre Dame (cum laude), U.S. Army Air Force veteran who saw combat in the South Pacific, prosperous California seed merchant who served as his state's Commissioner of Agriculture before being appointed Assistant Secretary of Agriculture for a four-year term (1969-1973). As today's Deputy Secretary of Agriculture, it seems he is the right man for the job at the right time.

nutrients in brain growth, maturation, and function are to define levels required for optimal development and function.

Obesity is a common American health problem. Research is needed to better define the causes of obesity, and develop more effective methods for weight maintenance and fitness. Studies on bioavailability of nutrients and factors that affect nutrient utilization are done on adults. Volunteers participate in studies of long duration carried out in a highly controlled manner such as possible under metabolic ward conditions. Studies are also carried out on free living subjects to extend findings to the population at large.

Sound dietary patterns related to the life cycle are a key concern. Current guidelines are available in the publication *Food*[2,3] USDA's Dietary Guidelines are based on the best scientific knowledge available. There is always a level of uncertainty in science. These guidelines are based on interpretations that may need modification. Research continues in this area.

The Agriculture Research Service, USDA's research performing agency, has five major nutrition research centers. They are located at Beltsville, Maryland, associated with the University of Maryland and Georgetown University, in Boston, associated with Tufts University, in Houston, associated with Texas Children's Hospital, Baylor College of Medicine, in Grand Forks, North Dakota, associated with the University of North Dakota, and in San Francisco at the Letterman Army Institute of Research, associated with the University of California. These centers focus on different research areas and also conduct cooperative research with other research laboratories, government agencies, and universities in this country and abroad.

Nutrition researchas also concerned with food production, processing, and marketing practices. Research in agricultural product utilization and nutrition is done at the research service's regional laboratories in Wyndmoor, Pennsylvania, Peoria, Illinois, Albany, California, and New Orleans. The goal is to develop nutrition and processing information about agricultural products which can be used by the food industry to develop consumer products that benefit both farmers and consumers.

One of the six objectives of the new Agriculture Research Service long range plan is to "develop the means for promoting optimum human health and well-being through improved nutrition and family resource management." The Service spent $27 million (about 7% of its program funding) on this work in fiscal year 1982. Plans call for this to increase to 10 percent by 1990, which would represent about $41 million in 1982 dollars.

Additional human nutrition research to support USDA's goals is done by 58 state agricultural experiment stations. These state units receive partial federal support through the Hatch Act[4], which provides for at least one experiment station in every state and territory to conduct research "basic to the problems of agriculture in its broadest sense . . .". Cooperative State Research Service serves as an administrative, coordinating and communicating link for the cooperative state-federal agricultural research system.

About $7 million in USDA funds was spent by states on nutrition research in fiscal year 1982. The largest share went to nutrient composition of foods and nutrition bioavailability. Nutrient requirements and nutritional status assessment came next; then nutrition education research. Total nutrition research resources in the state system include state, foundation, and private sector funds as well as federal formula funds. This amounted to over $30 million in fiscal year 1982.

Not less than 25 percent of each experiment station's allocation must go to regional project research. Regional research fund administration has been delegated to state research services by the Secretary of Agriculture. Each re-

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[2] USDA, HNIS. *Food* [illegible] Bulletin [illegible] Available at [illegible] per copy from Superintendent of Documents, Government Printing Office, Washington, DC 20402. Stock No. [illegible]

[3] USDA, HNIS. [illegible] Available for purchase from the American Dietetic Association, P.O. Box [illegible] Chicago, IL [illegible]

[4] Hatch Act, Public Law 84-352, August 11, 1955, 69 Stat 671 USC 361 et seq.

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gional research project brings together scientific talent from several states, the Agriculture Research Service, and other agencies to resolve a problem too costly in personnel or funds for a single station to attack.

There are usually several regional nutrition projects in each of the four USDA regions. For example, a five-year project on the nutritional health of adolescent females focuses on 1,000 (each) black and white young women, 12 to 16 years of age, who live in eight Southern states. It is the largest project of this kind ever directed at this important high risk group. Its objectives include: (1) assessment of the nutritional health of adolescent females in the Southern region, and (2) determining the relationship of the nutritional health of adolescent females to socioeconomic factors, food habits, nutrition knowledge characteristics, and physiological development.

Researchers from 11 North Central states are doing research on the modification of human diets designed to affect lipid metabolism. "Nutrient Bioavailability—A Key to Human Nutrition" is the title of a Western regional project. Nine Northeastern states are collaborating in a closely controlled study to improve methods of assessing nutrient intake, and predict nutritional risk.

State nutrition research efforts are extended by $2 million earmarked by USDA for research on nutrient requirements as part of a small competitive grants program. Scientists in all institutions are eligible.

The results of USDA's human nutrition research are published in peer review journals and other professional media. All USDA nutrition research is reported on an annual basis into the Current Research Information System, which is operated by the service and available to the public by telephone. From throughout the nation it now contains 29,740 separate research project reports. About half are from our own research service and half come from projects coordinated by the cooperative services of the state system or from competitive grants. About one-fifth of all reports deal partly or entirely with human nutrition.

The National Agricultural Library supports nutrition research and related activities through its 27,000 volume food and nutrition information collection. This material constitutes a major subfile of the library's bibliographic on-line database. Emphasis is on human nutrition research, food service management, and food service technology. The scope of the collection is constantly expanded to assure coverage of all aspects of food and nutrition, including worldwide journal and monographic literature.

Additional nutrition resources are available for reference purposes in other areas of the 1.7 million volume collection of our national agriculture library. Areas include food science, nutrition, home economics, chemistry, and other categories.

USDA nutrition researchers must stay in touch with other institutions and agencies, especially when federal funds are involved. A Joint Subcommittee on Human Nutrition Research was established in 1978 by the Federal Coordinating Council on Science, Education, and Technology (FCCSET). Co-chaired by USDA and the Department of Health and Human Services (DHHS), the Subcommittee compiled and published federal nutrition research and education program reports. It also arranged conferences of scientists who work at federally-funded nutrition research units, and oversaw the development of a computerized system of nutrition research information retrieval. This Subcommittee has recently been terminated and DHHS and USDA are replacing it with a committee to accomplish many of the same objectives in a more efficient manner. The Interagency Committee on Human Nutrition Research, as it will be known, will be co-chaired by the Assistant Secretary of Science and Education, USDA, and the Assistant Secretary of DHHS.

Nutrition scientists work with plant and animal breeders to develop more nutritious, marketable and abundant products. Substantial progress has been made. Research is conducted to improve the nutrient value of plants and animals. Examples are the increased lysine content of corn and decreased fat content of pork. The lard content of the average market hog has decreased by 11 percent over the past 20 years. This means pork products at the supermarket are much leaner today.

It takes close cooperation between USDA and the vast agricultural business community to produce safe, nutritious food that travels the food chain to the consumer. Industry and industry groups draw on government and private sector research to make improvements. Government regulation has a key role to play, but so does the educational process, in which the Cooperative Extension Service instills interest in application among producers, processors, wholesalers, and retailers. Consumer needs and preferences and the dollar incentive are other important factors. All of this effects the nutritional well-being of the people here and abroad.

Nutrition Information and Education

> *USDA has an obligation to interpret nutrition research and disseminate nutrition information and education to the citizens of this Nation. The Human Nutrition Information Service collects and interprets data and research findings. It also develops research-based food and diet guides. The Cooperative Extension Service provides practical application of research based food and diet guides. The Cooperative Extension Service provides practical application of research-based information using new technologies through its educational out-of-school programs.*

Human Nutrition Information Service improves professional and public understanding of the nutritional adequacy of diets and food supplies, as well as the nutritive value of foods. It plans and conducts nutritional assessment surveys of the U.S. population and selected groups, provides research and materials to nutrition professionals, prepares research-based consumer materials for the public, and maintains and expands the Nutrient Data Bank.

Basic nutrient composition research carried out by the Agriculture Research Service Nutrient Composition Laboratory in Beltsville is complemented by the Human Nutrition Information Service sponsored nutrient data research. Results from this research are used to develop standard reference tables on the nutrient content of foods for USDA's Handbook No. 8, "The Nutrient Composition of Foods—Raw, Processed, and Prepared."[5]

The Human Nutrition Information Service communicates food and nutrition research to public policymakers and food and nutrition professionals. It conducts professional education activities such as the recent (April 7, 1983) maternal and infant nutrition research video teleconference that was viewed by over 10,000 health professionals at 120 sites nationwide.

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[5] USDA, Agricultural Handbook No. 8, *The Nutrient Composition of Foods: Raw, Processed and Prepared.* Presently in revision. Available from Superintendent of Documents, Government Printing Office, Washington, DC 20402. Stock No. [illegible]

Human Nutrition Information Service uses Nationwide Food Consumption Survey data to develop nutrition guidelines for nutrition educators, food program managers and consumers. These guidelines are used in USDA's Family Food Plans[6], general nutrition booklets, and technical nutrition reports.

Cooperative Extension Service, established by Congress in 1914[7], has a national mission to communicate food and nutrition research findings to adults and youth through its unique, grassroots system.

A partnership of professionals at Extension Service-USDA, 58 land-grant universities and over 3,000 counties annually reaches over 30 million adults and 4-H youth with useful nutrition information in the out-of-school CES program. This figure represents direct contacts; millions more are reached indirectly through mass media. The support of federal, state, county, and city governments contributes greatly to the Extension system's capabilities and resources.

Extension nutritionists and home economists develop educational programs that help audiences select nutritious and safe diets, recognizing budget restraints and family preferences. Local citizens and community leaders assist Extension professionals to identify target audiences, plan programs and develop materials. The use of trained volunteers, including 500,000 Extension Homemakers, extends programs in both rural and urban areas. Extension professionals help other agencies with inservice training programs and share educational resources.

Extension educators provide the latest, scientifically based information about nutrition or the safety, selection, storage, preservation, and preparation of food. They have access to the research bases of USDA, land-grant universities, and other public and private agencies. Extension professionals work with clientele groups to help them apply recent findings and understand all perspectives on controversial issues.

Extension staff use innovative teaching techniques, such as computer assisted instruction, correspondence courses, cable TV, videotex, dial access systems, and point of purchase projects. They also hold traditional meetings and workshops, and reach millions of people through mass media. Popular food and nutrition publications are written by the Agriculture Research Service, Human Nutrition Information Service and Cooperative Extension Service, and other agencies of USDA. These are available through local Cooperative Extension Service offices or the Superintendent of Documents, Government Printing Office, Washington, D.C. 20402.

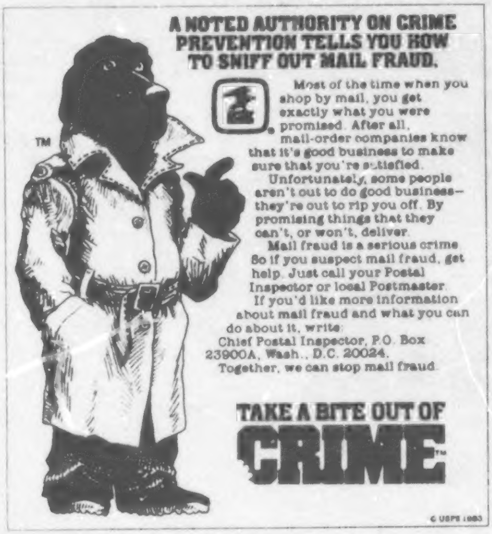
Positive dietary changes are being made by Americans. Because the Cooperative Extension Service reaches people of all ages and income levels, programs emphasizing dietary practices can follow an individual's needs through a lifetime.

Extension also has an Expanded Food and Nutrition Education Program[8] which employs approximately 5,000 paraprofessionals from low-income communities to provide food and nutrition education to limited resource families, especially those with young children, and youth of 4-H age. More than 2.1 million families and 5.5 million youth have been enrolled in the program since fiscal year 1968.

FOOD SAFETY

> *The safety of our American food supply is recognized worldwide. We must continue strong surveillance practices which ensure the safety and wholesomeness of our foods.*

USDA's Food Safety and Inspection Service has the largest health inspection force in the federal government—more than 8,000 inspectors in 7,200 meat and poultry plants. Inspection begins at slaughter when veterinarians assess the health status of livestock and poultry. After slaughter, all carcasses and organs are inspected to see if they are unfit for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[6] Cleveland, Linda E. and Peterkin, Betty B. "USDA 1983 Family Food Plans." Family Economics Review 1983 issue No. 2. Note: Costs of USDA Food Plans are in each quarterly issue of the magazine. For subscription information, contact [illegible]

[7] Smith-Lever Act, Public Law 95 (63rd Congress), May 8, 1914, Ch. 79, 38 Stat. 372; 7 USC 341 et seq.

[8] EFNEP was initiated in fiscal year 1968 by Sect. 32 of an act to amend the Agricultural Adjustment Act, and for other purposes, August 1935, Ch. 641, 74th Congress, Sess. 1, 49 Stat. 750, 774. In fiscal year 1970, EFNEP was funded with an appropriation of Smith-Lever Act 3(d) funds, Public Law 93-127, USC 341-449. Current information on the program is available by contacting Home Economics and Human Nutrition, ES-USDA, Room 5407-S, Washington, D.C. 20250.

The five human nutrition research facilities of the USDA.

In the following pages we present photographs of the five centers of human nutrition located about the country. In a sense, each lab is concerned with a different aspect of science. The groups' activities are coordinated by Gerald S. Combs, Ph.D., from his office in Beltsville, Maryland. Before coming to the Department of Agriculture, Dr. Combs was Director of Nutritional Programs at the National Institutes of Health in Bethesda, Maryland.

Walter Mertz, M.D., is Director of the USDA's Human Nutrition Research Center at Beltsville, Maryland, near Washington. This center conducts research that establishes human requirements for macro- and micronutrients vital to optimum health. Before being selected to head the Beltsville team, Dr. Mertz spent several years in nutrition research at the National Institutes of Health and at the Walter Reed Army Medical Center. At present, readers of nutrition are enjoying his series of articles about nutritionally essential trace elements. (N.T. 18 (M/A 1983) p. 6); (N.T. 18 (S/O 1983) p. 26)

Beltsville, Maryland

Grand Forks, North Dakota

Harold H. Sandstead, M.D., directs the large institute for human research that the Department of Agriculture operates in Grand Forks, North Dakota. While this very modern facility conducts many studies on nutrient interactions, especially those of vitamins, it is now embarked on research into human metabolism that holds great promise for improving our understanding of this fundamental topic. The photo shows only a small slice of the institute's buildings which now include a new metabolism center that is said to be one of the nation's finest.

Buford L. Nichols, M.D., Professor of Pediatrics and Physiology at Baylor College of Medicine in Houston, (Chief, Section of Nutrition and Gastroenterology), is Scientific Director of the USDA's Children's Nutrition Research Center, his primary concern. The Center shares quarters with the medical college in the stately Medical Towers Building, a part of the well-known private medical school. The mission of the Center covers the entire field of infant and child nutrition.

Houston, Texas

San Francisco, California

James M. Iacono, Ph.D., a world renowned lipid scientist from the University of Cincinnati Medical School, now directs the USDA's Human Nutrition Center at the Presidio overlooking San Francisco Bay. They share quarters with the Letterman Army Institute of Research and are deeply involved in studies related to food support and intervention programs to improve human health and the usage of foods produced by American farmers.

Boston, Massachusetts

Hamish N. Munro, M.D., deals with the monumental problems induced by the birthing pains of the Department of Agriculture's newest and largest—the Human Nutrition Research Center on Aging located in downtown Boston. Dr. Munro expects to resume his brilliant career at Massachusetts Institute of Medicine as soon as the operation of the institute can be contracted to a local university.

human food. Inspectors check slaughter and processing facilities and equipment to ensure sanitary conditions.

Food Safety and Inspection Service inspectors also monitor processed meats including ham, bacon, luncheon meats, and canned meats. They ensure plant sanitation, proper cooking and refrigeration, and the proper processing of products. Products are checked to make sure they contain only wholesome ingredients in approved formulations and are labeled accurately.

The inspectors take samples of meat, poultry, and processed products and sent them to the service's laboratories. Each year, approximately 200,000 tests are run for food poisoning bacteria, drug and chemical residues, species identification, and processes which adversely affect nutrient content.

In 1981, the Food Safety and Inspection Service and the Extension Service, USDA, joined together in a cooperative effort to work with producers to avoid drug and chemical residue problems in livestock and poultry products. Education and enforcement are the most effective ways to prevent residue problems. Thirty-five land grant university projects are focusing on producer education and contaminant research.

FOOD ASSISTANCE PROGRAMS

For many years USDA has provided food assistance to those in greatest need. We must continue this effort, making sure that all programs are effectively and efficiently operating.

Limited resource families are helped to avoid nutritional risk through USDA's 10 food assistance programs which are operated by the Food and Nutrition Service. These programs draw upon the research and educational resources of USDA. Through them, the federal government subsidizes 95 million meals a day, provides information, and improves the nutrition of families.

The Food Stamp Program helps needy families buy the food they need for good health. Participating families get coupons, free of charge, which they exchange for food at authorized stores. The value of the food stamp allotment depends on a household's size and financial circumstances. Twenty-two million persons—almost one in ten Americans—participate in the Food Stamp Program each month. Seventy-five percent of them are elderly, disabled, children, or female household heads with dependent children.

USDA helps schools serve nourishing, low-cost meals to 23 million children each day by providing cash, commodities, and technical assistance in the School Lunch Program. Schools must meet nutritional standards. Training is provided to school lunchroom personnel. Eligible children can receive lunches free or at a reduced price. Findings from a recenty study[9] show that students who eat school lunches have higher intakes of energy and more nutrients than students who don't participate in any of the school nutrition programs.

The Special Supplemental Food Program for Women, Infants, and Children provides food supplements and educational information that benefits pregnant, breastfeeding and postpartum women, infants, and children up to age 5. To qualify, mothers and children must be individually certified as "nutritional risks" because of dietary need and inadequate income. Each participating mother receives a food package tailored to her or her child's nutritional needs.

Through the Food Distribution Program, USDA buys surplus foods from U.S. markets and distributes them to state agencies for use by schools and child care centers, charitable organizations, meal services for the elderly, needy families on Indian reservations, hospitals, prisons, and the military. The foods are also used to help victims of natural disasters.

Since early 1982, states have distributed a large government surplus of cheese to needy families through food banks, charitable institutions, and local government agencies. At the end of one year, this cheese had reached nearly 10 million needy people. Later in 1982, a similar distribution effort began for surplus butter. Plans call for distribution of rice, cornmeal, nonfat dry milk, and honey. State and local volunteer groups have made the crucial difference in getting these surplus foods into the hands of the needy.

The Food and Nutrition Service also operates the School Breakfast Program, Child Care Food Program, Summer Food Service Program, Commodity Supplemental Food Program, Special Milk Program, and Nutrition Education and Training Program. USDA is constantly evaluating the effectiveness of its food assistance programs to ensure that programs are effective. All of the food assistance programs are available to eligible persons without regard to race, color, national origin, sex, age, or handicap.

CONCLUSION

It has been good to share these thoughts with you. USDA programs are not designed in isolation. We call upon many groups and individuals to assist us in planning and policy formulation. We hope that these policies and related actions will be of assistance to you in the important work you do, and that, together, we can work toward achieving a better application of nutrition knowledge, understanding of the food system, and fitness for all.

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[9] USDA, "National Evaluation of School Nutrition Programs," FNS Office of Analysis and Evaluation, April, 1983. Copies of a 13-page executive summary of final report are available from FNS Information Office, Alexandria, VA 22302. Two volumes of complete report will be available shortly from the National Technical Information Service (NTIS), U.S. Department of Commerce, Springfield, VA 22161.

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98TH CONGRESS
2D SESSION

H. R. 4684

To establish a coordinated National Nutrition Monitoring and Related Research Program, and a comprehensive plan for the assessment and maintenance of the nutritional and dietary status of the United States population and the nutritional quality of the United States food supply, with provision for the conduct of scientific research and development in support of such program and plan.

IN THE HOUSE OF REPRESENTATIVES

JANUARY 30, 1984

Mr. MACKAY (for himself, Mr. BROWN of California, and Mr. WALGREN) introduced the following bill; which was referred jointly to the Committees on Agriculture and Science and Technology

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A BILL

To establish a coordinated National Nutrition Monitoring and Related Research Program, and a comprehensive plan for the assessment and maintenance of the nutritional and dietary status of the United States population and the nutritional quality of the United States food supply, with provision for the conduct of scientific research and development in support of such program and plan.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, SHORT TITLE

SECTION 1. This Act may be cited as the "National Nutrition Monitoring and Related Research Act of 1984".

FINDINGS

SEC. 2. The Congress finds and declares that—

(1) a national nutrition monitoring system is a basic tool necessary to examine the linkages between food consumption patterns, nutritional status, and health status;

(2) a national nutrition monitoring system is essential to insure the nutritional quality of the national food supply, to insure that the nutritional needs of the public are achieved, and to insure that appropriate data bases are maintained to guide the expenditure of public funds for nutrition research and for development, education, and intervention programs designed to maintain and enhance the nutritional status of the population;

(3) scientific methods and technologies to assess nutritional and dietary status are costly, imprecise, and lack standardization;

(4) Federal efforts to collect, analyze, interpret, and disseminate dietary and nutritional status data are untimely, give inadequate attention to assessing high-risk groups and geographic areas, and lack resources for the continuous collection, processing, and analysis

of dietary, nutritional, and related health status information and for the monitoring of general health trends and their relationship to food practices and supplies;

(5) nutrition monitoring and related research lacks a central Federal focus for the development, coordination, and implementation of a strategic and timely national nutrition monitoring program; and

(6) no effective means currently exist to assist State and local governments in obtaining dietary and nutritional status data and in developing related data bases and networks, or to bring together public and private interests to identify national nutrition monitoring priorities and issues, and to promote progress in a cooperative forum.

PURPOSE

SEC. 3. It is the purpose of this Act—

(1) to establish and facilitate the timely implementation of a coordinated National Nutrition Monitoring and Related Research Program and thereby establish a scientific basis for the maintenance and improvement of the nutritional status of the United States population and the nutritional quality of the United States food supply;

(2) to establish and implement a comprehensive National Nutrition Monitoring and Related Research

Plan to assess on a continuing basis the dietary and nutritional status and trends of the United States population, the state-of-the-art, future monitoring and related research priorities, and the relevant policy implications of the findings;

(3) to establish and improve national nutritional and health status data and related data bases and networks, and to support research necessary to develop uniform indicators, standards, methodologies, technologies, and procedures for nutrition monitoring;

(4) to establish a central Federal focus for the coordination, management, and direction of Federal nutrition monitoring activities;

(5) to establish mechanisms for addressing the nutrition monitoring needs of Federal, State, and local governments, the private sector, scientific and engineering communities, health professionals, and the public in support of the objectives described in paragraphs (1), (2), (3), and (4); and

(6) to provide for the conduct of such scientific research and development as may be necessary or appropriate in support of such objectives.

DEFINITIONS

SEC. 4. As used in this Act—

(1) the terms "National Nutrition Monitoring and Related Research Program" and "coordinated program" mean the coordinated program established by section 101(a);

(2) the terms "Directorate for Nutrition Monitoring and Related Research" and "Directorate" mean the task force and management consortium established by section 101(b);

(3) the terms "National Nutrition Monitoring and Related Research Plan" and "comprehensive plan" mean the comprehensive plan established by section 103;

(4) the term "Joint Implementation Plan for a Comprehensive National Nutrition Monitoring System" means the plan of that title submitted to the Congress in September 1981 by the Department of Agriculture and the Department of Health and Human Services, pursuant to section 1428 of Public Law 95-113; and

(5) the terms "National Nutrition Monitoring Advisory Council" and "Council" mean the advisory body established by section 201.

TITLE I—NUTRITION MONITORING AND RELATED RESEARCH

ESTABLISHMENT OF THE COORDINATED PROGRAM AND THE DIRECTORATE

SEC. 101. (a) There is hereby established a ten-year coordinated program to carry out the purpose of this Act.

(b)(1) To implement the coordinated program there shall be formed a Directorate for Nutrition Monitoring and Related Research, of which the Secretary of Agriculture, the Secretary of Health and Human Services, and the Secretary of Defense shall be joint chairpersons. The remaining membership of the Directorate shall consist of—

(A) one representative each from the Environmental Protection Agency, the National Bureau of Standards, the Bureau of Labor Statistics, the Agency for International Development, the Veteran's Administration, and the National Science Foundation;

(B) from the Department of Agriculture—the Administrator of the Agricultural Research Service, the Administrator of the Economic Research Service, the Administrator of the Cooperative State Research Service, the Administrator of the Food and Nutrition Service, and the Administrator of the Human Nutrition Information Service;

(C) from the Department of Health and Human Services—the Director of the Bureau of Foods of the Food and Drug Administration, the Director of the Centers for Disease Control, the Administrator of the Health Resources and Services Administration, the Director of the National Center for Health Statistics, and the Director of the National Institutes of Health;

(D) from the Department of Defense—the Commander of the United States Army Medical Research and Development Command;

(E) the Chairperson and Vice Chairperson of the Council established by section 201 of this Act; and

(F) such additional representatives of Federal agencies, and other persons, as the joint chairpersons of the Directorate may deem appropriate.

(2) The Administrator of the Agricultural Research Service, the Administrator of the Human Nutrition Information Service, the Director of the Centers for Disease Control, and the Director of the National Center for Health Statistics shall constitute a management consortium having the responsibilities described in section 102 as well as the general responsibilities required by their representation on the Directorate. In carrying out these responsibilities the consortium shall report to, and act pursuant to direction from, the joint chairpersons of the Directorate.

(c) The Assistant Secretary for Health, Department of Health and Human Services, shall serve as the administrator of the coordinated program.

(d) The Directorate shall not be under the supervision or control of any other Federal agency or entity; but for purposes of funding ~~and~~ administrative services it shall be considered a part of the Department of Health and Human Services.

FUNCTIONS OF THE DIRECTORATE

SEC. 102. (a) The Directorate is authorized and directed—

(1) to establish the goals of the coordinated program, identify the activities required to meet the goals, and identify the responsible agency;

(2) to update and integrate the Joint Implementation Plan for a Comprehensive National Nutrition Monitoring System into the coordinated program;

(3) to direct and assure the timely implementation of the coordinated program and the comprehensive plan established by section 103;

(4) to establish a competitive grants program, to be carried out and administered by the National Science Foundation in accordance with the provisions of this Act, to encourage and assist the conduct, by Federal and non-Federal entities on an appropriate match-

ing funds basis, of research (including research described in section 103(a)(2)) which will accelerate the development of uniform and cost-effective standards and indicators for the assessment and monitoring of nutritional and dietary status and for relating food consumption patterns to nutritional and health status;

(5) to develop an annual interagency budget for each fiscal year of the coordinated program; and

(6) to foster productive interaction between Federal efforts, State and local governments, the private sector, scientific communities, health professionals, and the public.

(b) The Directorate shall convene as necessary, but no less often than quarterly during each fiscal year of the ten-year period covered by the coordinated program.

(c) The Directorate shall submit to the President and the Congress by January 15 of each year an annual report which shall—

(1) evaluate the progress of the program under this Act;

(2) summarize the results of such program components as are developed under section 103;

(3) analyze the nutritional and related health status of the United States population, the nutritional quality of the national food supply, the relevant policy

implications of the findings, and future nutrition monitoring and related research priorities; and

(4) include in full the annual report of the Council as specified in section 202.

DEVELOPMENT OF THE COMPREHENSIVE NATIONAL NUTRITION MONITORING AND RELATED RESEARCH PLAN

SEC. 103. (a) The Directorate shall prepare a comprehensive plan for the coordinated program which shall be designed—

(1) to assess, collate, analyze, and report on a continuous basis the dietary and nutritional status and trends of the United States population, the state-of-the-art, future monitoring and related research priorities, and relevant policy implications of the findings;

(2) to sponsor or conduct research necessary to develop uniform indicators, standards, methodologies, technologies, and procedures for nutrition monitoring and surveillance;

(3) to develop and maintain a national dietary and nutritional status data bank, a nutrient data bank, and other data resource requirements;

(4) to assist State and local agencies in developing procedures and networks for nutrition monitoring and surveillance; and

(5) to focus the activities of the Federal agencies.

(b) The comprehensive plan shall, as a minimum, include programs to—

(1) maintain and coordinate the National Health and Nutrition Examination Survey (NHANES) and the Nationwide Food Consumption Survey (NFCS), and in future surveys provide for the continuous collection, processing, and analysis of nutritional and dietary status data through a stratified probability sample of the United States population designed to permit statistically reliable estimates of high-risk groups and geographic areas and to permit accelerated data analysis (including annual analysis, as appropriate, beginning with the second year after the year in which this Act is enacted, and comprehensive analysis every five years beginning with the sixth year after the year in which this Act is enacted);

(2) maintain and enhance other Federal nutrition monitoring efforts such as the Centers for Disease Control Nutrition Surveillance Program and the Food and Drug Administration Total Diet Study, and, to the extent possible, coordinate such efforts with the surveys described in paragraph (1);

(3) incorporate, in the survey design, military and (where appropriate) institutionalized populations;

(4) complete the analysis and interpretation of NHANES and NFCS data sets collected prior to 1984 within one year after the date of the enactment of this Act;

(5) improve the methodologies and technologies available for the assessment of nutritional and dietary status and trends;

(6) develop uniform standards and indicators for the assessment and monitoring of nutritional and dietary status, for relating food consumption patterns to nutritional and health status, and for use in the evaluation of Federal food and nutrition intervention programs;

(7) establish national baseline data and procedures for nutrition monitoring;

(8) provide scientific and technical assistance to State and local governments for the purpose of obtaining dietary and nutritional status data and developing related data bases and networks to promote the development of a national nutritional status network;

(9) establish mechanisms to identify the needs of users of nutrition monitoring data and to encourage the private sector and the academic community to participate in the development and implementation of the comprehensive plan and contribute relevant data from

non-Federal sources to promote the development of a national nutritional status network;

(10) produce an inventory of Federal, State, and nongovernment activities related to nutrition monitoring and related research;

(11) focus on national nutrition monitoring needs while building on the responsibilities and expertise of the individual membership of the Directorate;

(12) administer the coordinated program, define program objectives, priorities, oversight, responsibilities, outcomes, and resources, and define the organization and management of the Directorate and the Council; and

(13) provide a mechanism for periodically evaluating and refining the coordinated program and the comprehensive plan which facilitates cooperation and interaction by State and local governments, the private sector, scientific communities, and health professionals, and which facilitates coordination with non-Federal activities.

(c) The comprehensive plan shall allocate all of the projected functions and activities under the coordinated program among the various Federal agencies and offices that will be involved, and shall contain an affirmative statement and description of the functions to be performed and activities to be undertaken by each of such agencies and offices in carrying out the coordinated program.

(d) The comprehensive plan—

(1) shall be submitted in draft form to the Congress, and for public review, within six months after the date of the enactment of this Act;

(2) shall be available for public comment for a period of sixty days after its submission in draft form under paragraph (1);

(3) shall be submitted in final form, incorporating such needed revisions as may arise from comments received during the review period, to the President and the Congress within forty-five days after the close of the period allowed for comments on the draft comprehensive plan under paragraph (2); and

(4) shall constitute the basis on which each agency participating in the coordinated program requests authorizations and appropriations for nutrition monitoring and related research during the ten-year period of the program.

(e) Nothing in this section shall be construed as modifying, or as authorizing the Directorate or the comprehensive plan to modify, any provision of an appropriation Act (or any other provision of law relating to the use of appropriated funds) which specifies (1) the department or agency to which funds are appropriated, or (2) the obligations of such department or agency with respect to the use of such funds.

IMPLEMENTATION OF THE COMPREHENSIVE PLAN

SEC. 104. (a) The comprehensive plan shall be carried out during the period ending with the close of the ninth fiscal year following the fiscal year in which the comprehensive plan is submitted in its final form under section 103(d)(3), and—

(1) shall be carried out in accord with, and meet the program objectives specified in, section 103(a) and paragraphs (1) through (10) of section 103(b);

(2) shall be managed in accord with paragraphs (11) through (13) of section 103(b);

(3) shall be carried out, by the Federal agencies involved, in accord with the allocation of functions and activities under section 103(c); and

(4) shall be funded by appropriations which shall be made to such agencies (and to the Secretary of Health and Human Services) pursuant to section 107 for each fiscal year of the program, subject to annual authorizations hereafter enacted, and which shall to the maximum extent feasible be made pursuant to each such authorization for the fiscal year involved and the ensuing two fiscal years.

The Congress through its appropriate authorizing committees shall exercise continuing oversight over the coordinated program, taking into account the Directorate's annual reports and such other information and data as may be developed.

(b) Nothing in this title shall be deemed to grant any new regulatory authority or to limit, expand, or otherwise modify any regulatory authority under existing law, or to establish new criteria, standards, or requirements for regulation under existing law.

SCIENTIFIC RESEARCH AND DEVELOPMENT IN SUPPORT OF COORDINATED PROGRAM AND COMPREHENSIVE PLAN

SEC. 105. The Directorate shall provide for and coordinate the conduct, by the National Science Foundation, the National Aeronautics and Space Administration, the National Bureau of Standards, and other suitable Federal agencies, of such scientific research and development as may be necessary or appropriate in support of the coordinated program and the comprehensive plan and in furtherance of the purpose and objectives of this Act.

EXECUTIVE DIRECTOR AND STAFF OF THE DIRECTORATE AND COUNCIL

SEC. 106. (a) The Directorate shall have an Executive Director who shall be appointed by the President, by and with the advice and consent of the joint Chairpersons of the Directorate. The Executive Director shall receive basic pay at the rate provided for grade GS-18 of the General Schedule under section 5332 of title 5, United States Code.

(b) The Directorate may appoint and fix the pay of such additional staff as the Directorate deems desirable.

(c) The staff of the Directorate shall be appointed subject to the provisions of title 5, United States Code, and shall be paid in accordance with the provisions of chapter 51 and subchapter II of chapter 53 of such title, relating to classification and General Schedule pay rates.

(d) The Executive Director and staff shall plan and implement the functions of the Directorate with the advice and counsel of the joint Chairpersons of the Directorate, shall serve as the focal point for the coordinated program, and shall serve as the Executive Secretary and staff for the Council.

AUTHORIZATION OF APPROPRIATIONS

SEC. 107. (a) For the purpose of establishing the Directorate and the Council, and for the purpose of developing the comprehensive plan under section 103, there is authorized to be appropriated to the Secretary of Health and Human Services for fiscal year 1985 the sum of $2,000,000 to remain available until expended.

(b) For the purpose of establishing and carrying out the competitive grants program under section 102(a)(4) there is authorized to be appropriated to the National Science Foundation, for the fiscal year in which the comprehensive plan is submitted in final form under section 103(d)(3) and for each of the nine succeeding fiscal years, the sum of $2,000,000 to remain available until expended.

(c) Other authorizations and appropriations for the fiscal year in which the comprehensive plan is submitted in final form under section 103(d)(3) and for the nine succeeding fiscal years, for purposes of carrying out the coordinated program and implementing the comprehensive plan, shall be requested by the Secretary of Health and Human Services and by each of the agencies which are allocated responsibilities under the program pursuant to section 103(c), in a separate line item of the budget of the agency involved and consistent with the interagency budget for the coordinated program; and to the maximum extent feasible such appropriations shall be provided on a three-year basis, subject to annual authorization Acts hereafter enacted.

TITLE II—NATIONAL NUTRITION MONITORING ADVISORY COUNCIL

ESTABLISHMENT OF THE COUNCIL

SEC. 201. (a)(1) There is hereby established a Council to carry out the purpose of this Act, to provide scientific and technical advice on the development and implementation of the coordinated program and comprehensive plan, and to serve in an advisory capacity to the Directorate.

(2) The Council shall consist of fifteen members, of whom—

(1) seven members shall be appointed by the President; and

(2) eight members shall be appointed by the Congress—two by the Speaker of the House of Representatives, two by the minority leader of the House of Representatives, two by the President pro tempore of the Senate, and two by the minority leader of the Senate.

(b) The persons appointed to the Council—

(1) shall be eminent in the fields of administrative dietetics, clinical dietetics, community nutrition research, public health nutrition, nutrition monitoring and surveillance, nutritional biochemistry, food composition and nutrient analysis, health statistics management, epidemiology, food technology, clinical medicine, public health administration, health education, nutritional anthropology, food consumption patterns, and economics; and

(2) shall be selected solely on the basis of established records of distinguished service.

(c) The persons appointed to the Council by the President shall include—

(1) two members who are employees in departments or agencies of the United States or are directors of nutrition research units which are primarily supported by Federal funds, and who have specialized interest in nutrition monitoring;

(2) one member who is an employee of a State government and who has a specialized interest in nutrition monitoring;

(3) one member who is an employee of a local government and who has a specialized interest in nutrition monitoring; and

(4) one member who is an appointed representative of the Food and Nutrition Board, National Academy of Sciences.

(d) The Council membership shall at all times have representatives from various geographic areas, the private sector, academia, scientific and professional societies, minority organizations, and public interest organizations.

(e) The President shall designate one member of the Council as Chairperson and one member as Vice Chairperson for a term of office not to exceed five years. The Vice Chairperson shall perform the duties of the Chairperson in the latter's absence. In case a vacancy occurs in the Chairpersonship or Vice Chairpersonship, the Council shall elect a member to fill such vacancy.

(f) The terms of office of the members of the Council shall be as follows:

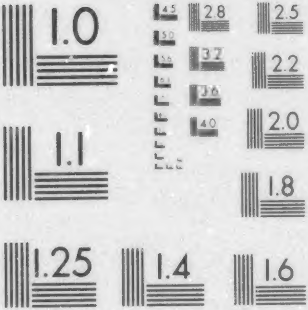
(1) Of the seven members appointed by the President and serving at any time, one shall be appointed for a term of five years, five for terms of three years each, and one for a term of two years, as designated by the President at the time of appointment.

(2)(A) Of the two members appointed by the Speaker of the House of Representatives and serving at any time, one shall be appointed for a term of five years and one for a term of two years, as designated by the Speaker at the time of appointment.

(B) Of the two members appointed by the minority leader of the House of Representatives and serving at any time, one shall be appointed for a term of five years and one for a term of two years, as designated by the minority leader at the time of appointment.

(C) Of the two members appointed by the President pro tempore of the Senate and serving at any time, one shall be appointed for a term of five years and one for a term of two years, as designated by the President pro tempore at the time of appointment.

(D) Of the two members appointed by the minority leader of the Senate and serving at any time, one shall be appointed for a term of five years and one for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NATIONAL BUREAU OF STANDARDS
STANDARD REFERENCE MATERIAL 1010a
(ANSI and ISO TEST CHART No. 2)

a term of two years, as designated by the minority leader at the time of appointment.

Any member elected to fill a vacancy occurring prior to the expiration of the term for which his or her predecessor was appointed shall be elected for the remainder of such term. No member shall be eligible to serve continuously for more than two consecutive terms.

(g) The Council members shall be appointed (without regard to the requirements of the Federal Advisory Committee Act) not later than ninety days after the date of the enactment of this Act.

(h) The Council shall meet no less often than once every three months at the call of the Chairperson, or upon the written request of one-third of the members. A majority of the appointed members of the Council shall constitute a quorum.

(i) Members of the Council who are not in the regular full-time employ of the United States may receive compensation when engaged in the duties of the Council at a rate fixed by the Directorate but not exceeding the daily equivalent of the rate provided for level GS-~~8~~ 18 of the General Schedule under section 5332 of title 5, United States Code, and shall be allowed travel expenses as authorized by section 5703 of title 5, United States Code. Members of the Council who are officers or employees of the Federal Government or any

State or local government shall serve without compensation but shall be allowed travel expenses as so authorized.

(j) The Executive Director and staff of the Directorate (appointed under section 106) shall serve as the Executive Secretary and staff of the Council.

FUNCTIONS OF THE COUNCIL

SEC. 202. The Council shall, in addition to any powers and functions granted to it by this Act—

(1) provide scientific and technical advice on the development and implementation of all components of the coordinated program and the comprehensive plan;

(2) evaluate the quality and effectiveness of the Directorate's fulfillment of its functions and responsibilities;

(3) evaluate the coordinated program and comprehensive plan, and the associated budget, on an annual basis and submit recommendations to the Directorate;

(4) interpret available data analyses and report on an annual basis the nutritional and related health status of the United States population and the nutritional quality of the national food supply; and

(5) submit to the Directorate an annual report which shall contain the components specified in paragraphs (2) through (4), and which shall be included in

full in the Directorate's annual report to the President and the Congress as specified in section 102(c).

NATIONAL SCIENCE FOUNDATION
WASHINGTON D C 20550

JUN 20 1984

Honorable Doug Walgren
Chairman, Subcommittee on Science,
Research and Technology
Committee on Science and Technology
House of Representatives
Washington, D.C. 20515

Dear Mr. Walgren:

Thank you for your letter of May 22. The National Science Foundation appreciates the opportunity to describe its participation in Federal interagency activities in the area of human nutrition research and to comment on H.R. 4684, the National Nutrition Monitoring and Related Research Act of 1984.

We must oppose enactment of H.R. 4684 for the reasons stated on pages 2 and 3.

The National Science Foundation (NSF) became a member of the Joint Subcommittee on Human Nutrition Research of the Committee on Health and Medicine and the Committee on Food, Agriculture and Forestry Research of the Federal Coordinating Council on Science, Engineering and Technology, Office of Science and Technology Policy, upon its establishment in September 1978. Dr. William van B. Robertson, Program Manager for Human Nutrition, represented the Foundation on the Joint Subcommittee. Dr. H. T. Huang, Program Manager for Alternate Biological Resources, served as alternate. These representatives served until the Joint Subcommittee was dissolved in June 1983, participating in all activities of the Joint Subcommittee, including development of the Human Nutrition Research and Information Management System.

In September 1983, Dr. Orville Bentley, Assistant Secretary for Science and Education, Department of Agriculture, and Dr. Edward N. Brandt, Jr., Assistant Secretary for Health, Department of Health and Human Services, invited the National Science Foundation to join the newly established Interagency Committee on Human Nutrition Research. Dr. Edward Knapp, Director of the National Science Foundation, accepted the invitation and appointed Dr. Robert Rabin, Acting Assistant Director for Biological, Behavioral, and Social Sciences, to represent the Foundation, with Dr. William van B. Robertson, Program Manager for Metabolic Biology, as alternate. Although the Foundation has no program in human nutrition research, funds very few grants having a readily identifiable nutrition component, and has no future plan for significantly increasing such support, a representative of the Foundation has attended each meeting of the Interagency Committee and participated in its deliberations.

Honorable Doug Walgren

The Foundation has reviewed H.R. 4684. The aims of the bill are laudable, but in several provisions it is flawed to a degree that renders it unsupportable by the NSF. The structure of the coordinated program is cumbersome and unwieldly; authority is diffuse. Expeditious accomplishment of its objectives seems unlikely.

The Foundation would be entrusted to establish a competitive grants program in areas of research in which it has had no experience (national nutrition surveillance and monitoring) or very limited experience (nutrition research). It would have but one voice in a 22-member directorate in which 12 members represent the two lead Federal agencies. Given NSF's relative innocence in matters germane to H.R. 4684, we believe that the Foundation would function mainly as a "pass-through" agency for funds the allocation of which would be extraordinarily influenced by those in the management consortium, directorate and advisory council with considerable experience in human nutrition.

Of at least equal concern is that in theory and, likely, in practice, the structure and functions of the directorate supersede the authority of NSF's Director and the authority of the National Science Board.

Throughout its history the Foundation has voluntarily joined its sister agencies in coordinated planning of scientific research without threat to its autonomy, authority, independent decisionmaking and originality. Also, it has joined other departments and agencies for these purposes as mandated by law. A preferable model of the latter is Public Law 95-367, the National Climate Program Act. This act provides for joint planning and program coordination among several agencies, but does not constrain each agency's autonomy in funding policies and practices. Section 105 of H.R. 4684 states that "The Directorate shall provide for and coordinate the conduct of . . . research and development" by the several agencies. The language, if interpreted narrowly, binds and restricts agency autonomy, even in the unlikely event that a directorate of such heterogeneity and diffuseness could effectively "coordinate the conduct of" research.

We are pleased that H.R. 4684 reflects trust in the Foundation's long experience in competitive grants programs and their performance. But it is useful to recall that NSF's identification with the sponsorship of nutrition research largely stems from a short-lived human nutrition program mandated in the Senate appropriations bill for FY 1979. The program ended operations at the close of FY 1981. In its lifetime, the program committed about $3.2 million while housed in the Directorate for Applied Science and Research Applications. No funds were spent in support of large-scale data bases or methodology relevant to the surveillance of nutritional status of population cohorts. In NSF's reorganization of 1981, the directorate was abolished and many programs were transferred to other research directorates. The human nutrition program was not included in the President's budget for FY 1982 submitted to the Congress.

Honorable Doug Walgren

The establishment of this program was an extraordinary event not voluntarily embraced by NSF. Traditionally, the Foundation has not supported and continues to state that it

> . . . will not support clinical research, including research on the etiology, diagnosis or treatment of physical or mental disease, abnormality, or malfunction in human beings or animals. Animal models of such conditions, or the development or testing of drugs or other procedures for their treatment also generally are not eligible for support.

This statement appears in the NSF "Grants Policy Manual," "Grants for Scientific and Engineering Research," and "Guide to Programs." It appears likely that accomplishment of the goals of H.R. 4684 would require the conduct of clinical research.

Section 102 (a)(4) of the bill calls for the competitive grants program administered by NSF "to encourage and assist the conduct, by Federal and non-Federal entities, on an appropriate matching funds basis, of research . . . ." NSF has express statutory authority to support research performed by other Federal agencies. But such would have the effect of augmenting the budgets of other agencies beyond what the President and the Congress have considered justified, and could alter the allocation of resources among national goals that the President and Congress have established. The Foundation tries to avoid actions that could lead other agencies to diminish support of research relevant to their missions. It is the policy of the Foundation not to encourage research proposals from other Federal agencies or federally-funded research and development centers. Therefore, we believe that the competitive grants program proposed in H.R. 4684 if needed would be more properly included among the programs in the lead agencies.

The Office of Management and Budget advises that it has no objection to the submission of this report.

Sincerely yours,

Robert Rabin

Robert Rabin
Acting Assistant Director
Biological, Behavioral,
and Social Sciences

Copy to: Honorable George E. Brown, Jr.
Chairman, Subcommittee on
Department Operations, Research
and Foreign Agriculture
Committee on Agriculture

DEPARTMENT OF AGRICULTURE
OFFICE OF THE SECRETARY
WASHINGTON, D.C. 20250

JUL 24 1984

JUL 25 1984

Honorable Doug Walgren, Chairman
Subcommittee on Science, Research
and Technology
Committee on Science and Technology
House of Representatives
Washington, D.C. 20515

Dear Mr. Chairman:

This letter is to urge your opposition to H.R. 4684, the National Nutrition Monitoring and Related Research Act of 1984.

The Department of Agriculture is committed to the need for better and increased nutrition monitoring. With the Department of Health and Human Services, we submitted to the Congress in 1981 an implementation plan for the Joint Nutrition Monitoring System. That work is progressing well. In addition to our previous testimony in this regard, we are pleased to inform you that plans have now been finalized for an expansion of the Continuing Survey of the Food Intakes of Individuals. In Fiscal Year 1985, the continuing survey will include data collection on the nutritional status of low-income individuals. Extremely valuable and important data will be collected in these newly-designed nutrition surveys.

Despite good intentions, H.R. 4684 would hinder rather than promote the progress that is currently being made toward better nutrition monitoring. The extremely cumbersome, multitiered management structure mandated by H.R. 4684 would mire this important work in unneeded bureaucracy.

In addition, the bill has the potential for instituting new annual expenditures in excess of $20 million for activities which have not been determined worthwhile.

Enclosed is a copy of the legislative report on this bill.

Thank you for your attention to this matter.

Sincerely,

John Block

John R. Block
Secretary

Enclosure

DEPARTMENT OF AGRICULTURE
OFFICE OF THE SECRETARY
WASHINGTON, D.C. 20250

JUN 14 1984

Honorable E (Kika) de la Garza
Chairman, Committee on Agriculture
House of Representatives
Washington, D.C. 20515

Dear Mr. Chairman:

This is in response to your request for a report on H.R. 4684, "To establish a coordinated National Nutrition Monitoring and Related Research Program, and a comprehensive plan for the assessment and maintenance of the nutritional and dietary status of the United States population and the nutritional quality of the United States food supply, with provision for the conduct of scientific research and development in support of such program and plan."

The U.S. Department of Agriculture (USDA) opposes enactment of H.R. 4684.

We agree that a national monitoring system is necessary to insure that the nutritional needs of the public are satisfied and to provide information to guide the expenditure of public funds for nutrition research and intervention programs. However, the USDA is committed to implementation of the National Nutrition Monitoring System submitted to Congress in 1981. We believe that our planned sequential and systematic monitoring efforts, which are being coordinated with the Department of Health and Human Services (DHHS) efforts, will be sufficient to provide necessary monitoring information, especially in light of our attempt to control costs through emphasis on priority research needs.

The USDA's Human Nutrition Information Service is implementing the USDA's portion of the National Nutrition Monitoring System, described by USDA and DHHS in a report to Congress in 1981. Examples of this implementation are two major methodological studies to improve data collection and handling efficiency and to improve the quality of the data collected. Another example is the Conference on Uses of National Survey Data on Food Consumption sponsored jointly with DHHS, to determine the priority needs for dietary data of Government, academia, and industry. We have been working with DHHS for several years to make the Nationwide Food Consumption Survey (NFCS) and the National Health and Nutrition Examination Survey (NHANES) more comparable. Actions taken include use of the same coding system; coordination of questions and interviewer instructions and training; use of the same nutrient data base, sex/age categories and standards in analyzing data; and use of sampling plans that will ensure the comparability of the data.

The major thrust of USDA's monitoring effort is the initiation, with fiscal year 1984 funds, of a Continuing Survey of Food Intakes of Individuals. This survey will provide part of the information that would be required by H.R. 4684. Data collection will be started in

3. A national nutritional status network may not be helpful to States and local areas who often have different data needs. Even with extensive national guidelines, State and local studies would probably differ in many ways such as sample selection and quality controls. This would make aggregation or comparison of results technically unsound.

4. The proposed system of grant awards through the National Science Foundation would involve that agency in activities outside its current mission. There appears to be no direct link between the Directorate and their perception of research needs and the National Science Foundation. Furthermore, this activity appears to overlap the mission of the Western Nutrition Center of the Agricultural Research Service, which is to focus on measurements of nutritional status, and that of the Human Nutrition Information Service, which has and is devoting considerable resources to methodological research on methods and criteria for measurement of dietary status.

For fiscal year 1985, H.R. 4684 would authorize appropriations of $2 million for establishment of the Directorate and Council and development of the comprehensive plan. These funds would be appropriated to the Secretary of DHHS. In addition, $2 million would be appropriated to the National Science Foundation for the competitive grants program in fiscal year 1985 and each of the succeeding 9 years. Other costs depend on the monitoring plan developed by the Directorate. However, based on one possible plan to implement H.R. 4684, we estimate that USDA's cost in fiscal year 1986 would be $20.6 million.

In summary, we believe that we are progressing in a systematic way in implementing, with DHHS, a coordinated nutritional monitoring system. We feel that the organizational structure proposed in H.R. 4684 would tend to be burdensome and hamper, rather than facilitate, the monitoring effort. Therefore, we must oppose enactment of H.R. 4684.

The Office of Management and Budget advises that there is no objection to the presentation of this report from the standpoint of the Administration's program.

Sincerely,

John R Block

John R. Block
Secretary

BEST COPY

DEPARTMENT OF HEALTH & HUMAN SERVICES

Public Health Service

Office of the Assistant Secretary
for Health
Washington DC 20201

RECEIVED
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COMMITTEE ON SCIENCE
AND TECHNOLOGY

AUG 7 1984

The Honorable Don Fuqua
Chairman
Committee on Science and Technology
House of Representatives
Washington, D.C. 20515

Dear Mr. Chairman:

This letter is to restate the Administration's opposition to H.R. 4684, The National Nutrition Monitoring and Related Research Act of 1984.

We had hoped that the Subcommittee on Science, Research and Technology mark-up of H.R. 4684 would have addressed concerns of the Department of Health and Human Services (HHS) about this bill. Unfortunately, the changes do not do so and the bill continues to be unacceptable.

Let me emphasize some of the points made in my testimony at the June 20, 1984 hearing of the Subcommittee on Science, Research and Technology:

- The organizational structure proposed to monitor the National Nutrition Monitoring and Related Research Program is overly cumbersome and inefficient;
- Mechanisms in place in HHS , the Department of Agriculture (USDA) and other Federal Agencies are adequate for conducting and coordinating nutrition research and monitoring;
- HHS, USDA and other Federal Agencies will soon publish a five year nutrition research plan;
- The Department's commitment to nutrition monitoring is evidenced by the successful conduct of the Hispanic Health and Nutrition Examination Survey, which is being completed as scheduled. Plans for the National Health and Nutrition Examination Survey (NHANES III) have been initiated and we are attempting to find resources to begin this survey in 1987 as previously scheduled.

H.R. 4684 in its current form will not promote the progress that is currently being made by the Administration toward better nutrition monitoring and research. We remain opposed to this bill.

The Office of Management and Budget has advised me that there is no objection to the presentation of this letter to the Congress from the standpoint of the Administration's objectives.

Sincerely yours,

Edward N. Brandt, Jr., M.D.
Assistant Secretary for Health

ORGANIZATIONAL ENDORSERS OF H.R. 4684

American Association of University Women

American Baptist Churches

American College of Preventive Medicine

American Dietetics Association

American Heart Association

American Home Economics Association

American Nurses Association

American Public Health Association

Association of Faculties of Graduate Programs in Public Health Nutrition

Association of Schools of Public Health

Association of State and Territorial Health Officials

Association of State and Territorial Public Health Nutrition Directors

Black Child Development Institute

Bread for the World

Center on Budget and Policy Priorities

Center for Science in the Public Interest

Children's Defense Fund

Coalition on Block Grants and Human Needs

Coalition for Public Health Nutrition

Community Nutrition Institute

Episcopal Church

Federation of Jewish Philanthropies, New York

Food Research and Action Center

Friends Committee on National Legislation

Health USA

IMPACT

Interfaith Action for Economic Justice

Joint Public Affairs Committee of the American Institute of
  Nutrition and the American Society for Clinical Nutrition

League of United Latin American Citizens

Mennonite Central Committee, U.S. Section, Washington Office

National Association of Counties

National Consumers League

National Council of Senior Citizens

National Dairy Council

National Farmers Union

National Grange

National League for Nursing

National Milk Producers Federation

National Nutrition Consortium representing:
  American Institute of Nutrition
  Institute of Food Technologists
  Society for Nutrition Education

National Pork Producers Council

National Perinatal Association

National PTA

Public Voice for Food and Health Policy

Rural America

Service Employees International Union

Southern Health Association

Subcommittee on Human Nutrition of the Experiment Station
  Committee on Policy of the Land Grant Colleges

Teachers of Preventive Medicine

United Church of Christ, Office of Church and Society

United Egg Producers

University of North Carolina Child Health Outcomes Project

U.S. Conference of Local Health Officers

World Hunger Education Service

World Hunger Year

nfpa
National Food Processors Association
1401 New York Ave., N.W.
Washington, D.C. 20005
202/639-5900

9

Statement of the

NATIONAL FOOD PROCESSORS ASSOCIATION

For the Record of

Subcommittee on Science, Research, and Technology
Committee on Science and Technology
U.S. House of Representatives

and

Subcommittee on Department Operations, Research,
and Foreign Agriculture
Committee on Agriculture
U.S. House of Representatives

on

H.R. 4684
National Nutrition Monitoring and Related Research Program
20 June 1984

For the Hearing Record on
H.R. 4684
National Nutrition Monitoring and Related Research Program
20 June 1984

The National Food Processors Association (NFPA) is a scientifically and technically based trade association representing about 450 member companies that pack processed-prepared fruits, vegetables, meats, poultry, fish and specialty products, including canned, frozen, dehydrated and pickled food items. NFPA has long been recognized for its interest in nutrition and for having the required scientists on staff to conduct research on foods. For these reasons we request that our comments be made a part of the official record for the hearings on H.R. 4684 which would establish a coordinated "National Nutrition Monitoring and Related Research Program."

NFPA has been active in nutrition studies since the early 1900's when it was known as the National Canners Association (NCA), and published its first bulletin, "Vitamins in Canned Foods" in 1922.

But this is 1984 and the industry has changed. NCA had the foresight to recognize future trends and changed its name in 1977 to NFPA to better reflect the total picture of the developing food processing industry of the future. No longer are our nutrition studies primarily of canned food products. Currently, NFPA is involved in obtaining data on the nutrient composition of foods as prepared for consumption: foods that have been cooked from fresh; those cooked from frozen; and those heat processed and reheated before serving.

Our Research Foundation (a non-profit organization), in cooperation with the U.S. Department of Agriculture (USDA) and the National Marine Fisheries Service (NMFS), has conducted two research projects to provide nutrient data on a variety of "fresh" foods. So-called "fresh" fruits, vegetables, meats and poultry often lose nutrients during shipping and storing due to improper handling. Many such products are not "fresh," but simply unprocessed. Many foods processed immediately after harvesting or slaughtering have the same or higher content of some nutrients than "fresh" foods bought by the consumer at retail stores and then prepared at home.

Although NFPA supports the basic goals of the proposed legislation, H.R. 4684, we do not believe this bill is the method by which those goals will be realized. We agree that the timeliness of data released from surveys done by the Department of Health and Human Services should be improved, nutrition survey planning should be coordinated, data bases must be expanded, the research base has to be improved and federal activities should be coordinated with state activities. But we also agree with the Department of Health and Human Services and the Department of Agriculture witnesses that the administrative structure proposed in H.R. 4684 is cumbersome and would not fulfill the goals stated in this bill. If enacted, this legislation would establish a directorate of twenty-two members and a council of fifteen members that would oversee and advise a small executive staff housed in the office of the Assistant Secretary for Health at the Department of Health and Human Services. The Administrator of the Agricultural Research Service, the Administrator of the Human

Nutrition Information Service, the Director of the Center for Disease Control, and the Director of the National Center for Health Statistics would form a management consortium that would report to the directorate while retaining the responsibilities they have now under the existing National Nutrition Monitoring System (NNMS) such as conducting a wide range of survey and research activities including the National Health and Nutrition Examination Survey (NHANES). This additional level of bureaucracy certainly is not needed and probably would slow advancement of the legislation's purported goals.

We believe the management of NNMS should remain the responsibility of the HHS Assistant Secretary for Health and the USDA Assistant Secretary for Food and Consumer Services. But we would urge that Congress direct HHS and USDA to recognize a National Nutrition Monitoring System as a high priority and make whatever budget adjustments necessary to ensure that a truly national monitoring system will be functioning in the near future.

A major concern of the food processing industry, however, is the current thinking that the consumer not only wants but has the right to all available "nutritional" information that could contribute to construction of a healthy diet. Most consumers when reading an ingredient or nutrition statement on a label do not have the scientific background required to know "why" they should reduce their fat intake or increase their calcium. The average consumer lacks the ability to interpret data in order to make a sound nutritional judgment. This is one situation where we believe too much information may actually prove an impediment to the professed goal of better educating the consumer on diet

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and health. Most disconcerting is that the lack of knowledge does not stop with the consumer. The very medical doctors we depend on for health advice have only recently become involved seriously in patient nutrition and few medical schools offer comprehensive programs on the subject.

Plus, for the consumer "nutrition" has become an umbrella term describing eating habits, health and lifestyle--a much broader context than used by professionals. Labeling and advertising can be extremely effective in providing consumers with information about the food products they buy. However, federal regulations prohibit labeling statements that in any way suggest a specific food may play a role in prevention or mitigation of disease. Although such matters may be freely discussed in the scientific and public press, in speeches and seminars, this information is absolutely forbidden for use by food processors. When one considers this irony, it is rather surprising so many nutrition studies have been done by the industry.

Advertising is an extension of food labels. It brings consumers to the retail shelf and causes them to select a certain product. Just providing technical information about the nutritional content of foods has been shown to be ineffective. Consumers need to know what the data mean in terms of the vast array of food products available in the supermarket so that they might know why that specific food is important to their individual diet.

NFPA has decided to undertake a major effort in the area of diet nutrition and health. We will seek to develop and collect information about the nutritional and health aspects of processed foods. (See attached information on five on-going NFPA projects.) Of great importance to our industry and the consumer, is that NFPA has started a dialogue with FDA exploring ways processors through labeling and advertising may provide consumers useful and scientifically sound information regarding diet and health.

This association and its members fully understand the reasoning behind FDA's regulation prohibiting health claims on the labels of food products. Any relaxation of current FDA policy must be adopted under carefully monitored circumstances in order to avoid irresponsible labeling claims. But we see such action as a major first step to a nutritionally well informed consumer.

We appreciate this opportunity to submit our comments for the hearing record on H.R. 4684.

Project Outline NFPA Eastern Laboratory

CC 425

USDA Funded

The Determination of the Nutrient Content of Selected Candies, Nuts, Condiments, Beverages and Vegetables

Objectives: To provide nutrient composition data for Agriculture Handbook #8; to assess the effects of cooking on the nutrient levels of selected grains and to provide sugar profiles and fiber contents for selected products.

Summary of Activities to Date: The project began in September 1982 and required the analysis of one hundred and fifty samples. We have procured one hundred and seventeen samples to date. USDA has not identified many of the remaining samples. Three progress reports have been written and submitted to USDA. Work is continuing on the last twenty-five samples, including fiber and sugar profiles.

Projected Activities: This contract is scheduled for completion on November 30, 1984. The remaining thirty samples will be procured and analyzed. A final progress report will be due on December 31, 1984.

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CC 426

Funded by Gulf and South
Atlantic Fisheries

Commercial Heat Sterilization of Shrimp Packed Retortable Pouches and its Effect on Quality and Nutrient Retention

Objective: 1) To establish thermal processes for shrimp that will assure commercial sterility; 2) to assess the effect of thermal processing on nutrient retention and quality; and 3) to evaluate shelf-life based on these two attributes.

Summary of Activities to Date: Product preparation and processing procedures have been developed. An initial pack to determine product quality by sensory evaluations is being done.

Projected Activities: Product quality and acceptance will be completed shortly. Sufficient product will be prepared to carry out the shelf-life and nutrient retention studies.

Project Outline NFPA Eastern Laboratory

CC 427 Funded by NMFS

Commercial Heat Sterilization of Seafood Packed in Retortable Pouches and Its Effect on Quality and Nutrient Retention

Objective: 1) To establish thermal processes for selected seafoods that will assure commerical sterility; 2) to assess the effect of thermal processing on nutrient retention and quality; and 3) to evaluate shelf-life based on these two attributes.

Summary of Activities to Date: This project was late in getting started and a 9 month time extention was obtained from the NMFS. The project end date is now February 27, 1984. Product preparation and processing procedures have been developed for Atlantic cod and shrimp Creole. After sensory evaluations have been conducted and the product found to be acceptable, the product will be prepared for shelf-life and nutritional evaluations.

Projected Activities: Product preparation and processing procedures are being developed for salmon, tuna and Alaskan pollock. When completed processed product will be subjected to sensory evaluation. If acceptable enough product will be processed to carry out the shelf-life and nutritional studies.

CC 428 USDA Funded

Investigations of the Carbohydrate Fraction of Foods: Raw, Processed and Prepared

Objectives: To characterize the carbohydrate fraction of over three hundred food samples by analyzing the samples for proximate constituents, fiber and sugar; to investigate the total dietary fiber method and to compare these results with the NDF and pectin contents; to investigate the effects of cooking and processing on the carbohydrate fraction and to provide information on seasonal changes in these components.

Summary of Activities to Date: This project began in October 1983 and will require the analysis of 312 samples. We have procured 82 samples and the proximate constitutents have been completed on the majority of these samples. Sugar profiles and fiber contents are being obtained at this time. Two progress reports have been written. The second report will be submitted within several days.

Projected Activities: This project does not end until March 30, 1985, and we are close to achieving our expected schedule. USDA will be working with us this summer to determine cooking procedures required. Because USDA would like the raw vegetables purchased throughout the year, we do not anticipate accelerating our sampling.

CC 429 7

Funded by New England Fishery
Development Foundation

Objectives: To create the basis for a national labeling strategy for surimi. With this strategy guidelines can be developed and established for labeling and descriptions of surimi and surimi-based food products.

Summary of Activities to Date: The Chemistry Division is to carry out nutritional comparisons between natural seafoods and analog products. Most samples have been obtained for thu analysis. Analytical work should start shortly.

Project Activities: This project ends July 30, 1984. Analytical evaluations to determine nutrient composition of surimi products and natural seafoods will be done. PER'S will also be determined on these samples.

Testimony
# of The
AMERICAN HEART ASSOCIATION

Submitted to the

House Committee on Science and Technology

Subcommittee on Science, Research, and Technology

and

House Agriculture Committee

Subcommittee on Department Operations,

Research and Foreign Agriculture

August 28, 1984

The American Heart Association (AHA) enthusiastically supports the purpose of H.R. 4684 the National Nutrition Monitoring and Related Research Program. Population surveillance, nutritional status monitoring, and evaluation of various strategies for nutrition intervention and related public policies can produce significant changes in health status of humans, such as the maintenance of health and the treatment of disease.

We strongly urge that the design of this program take into account increasing knowledge about the associations between dietary factors and many diseases; changing life styles; and the changing character of the food supply. Whereas in the past, nutrition monitoring and surveillance tended to be targeted toward those most likely to exhibit nutritional deficiency states, the primary causes of death and disability among Americans today-cancer, cardiovascular disease, hypertension, diabetes - are more related to nutritional excesses. The target population must also include adequate representatives from increasing numbers of the aging population due to the nutrition related disorders in that group. In addition the interaction of dietary factors with other environmental factors (occupation, smoking, exercise, environmental temperature) with intrinsic factors such as genetic make up and age must be taken into account.

Americans are eating less but more of the foods they eat are refined preprocessed foods. If the quality of the U.S. food supply is to be maintained, the potential impact of these changes on human nutrition must be anticipated.

The AHA supports the providers of H.R. 4684 which allows for research funds to the National Science Foundation into ways of improving the assessment of dietary intake and nutritional status-surveys, surveillance, and monitoring of populations. The nutritional status of people cannot be inferred from diet alone. Knowledge is lacking in regard to determining the meaning of the relationship of levels of nutrients in the blood to the amount of nutrients taken in the diet.

Anthropometric measurements require standardization, particularly for the extremes of weight ranges and for populations of different ethnic or genetic background.

There is a need to improve the methodology so that microdetermination will replace the traditional large samples of blood, urine, and other body fluids, and develop analytic techniques for analyzing large data sets containing multiple variable for possible relationships in order to better identify individuals and populations at risk for nutritional problems.

The determination of essential nutrients in blood and other tissues needs to be further researched, so that information on a number of essential nutrients on a population basis can be developed.

As research data from various surveys becomes available it should be possible to determine what parameters should be monitored, how often, and how much monitoring is needed in order to establish base lines and to determine significant change over time.

More study is needed in regard to the most effective use of the data for the purpose of (1) identifying nutrition related health problems of (2) designing and evaluating food intervention programs, fortification strategies, distribution activities and regulatory programs concerned with nutritional quality.

We support the providers of the act which call for closer collaboration between HANES and NFCS and the maintenance of other Federal nutrition monitoring efforts and the inclusion of the military and institutional populations. The purpose of each of these surveys is different but we urge that efforts be made to have them complement each other. If this is to be accomplished, their scheduling, sampling, field procedures, coding and classification and training of interviewers should be as comparable as possible. The proposed organizational structure appears to be quite complex but adequate. We urge that in addition to those disciplines listed as representatives on the Advisory Council there be someone representing human nutrition research specifically in lipid metabolism because of the association of this area with the major chronic diseases-atherosclerosis, diabetes-cancer-affecting our population.

In conclusion, the American Heart Association wholly supports the establishment of a coordinated Nutrition Surveillance and Monitoring Program fully supported by the Federal Government. The data eminating from it must be appropriate and timely if it is to serve the ultimate purpose of improving the health status of our population.

The American Heart Association through its large number of scientists expert in all areas of cardiovascular medicine, stands ready and willing to assist in the development of this program.

THE SECRETARY OF HEALTH AND HUMAN SERVICES
WASHINGTON, D.C. 20201

SEP 28 1981

The Honorable Doug Walgren
Chairman, Subcommittee on Science,
  Research and Technology
Committee on Science and Technology
House of Representatives
Washington, D.C. 20515

Dear Mr. Walgren:

We take pleasure in transmitting the Joint Implementation Plan for a Comprehensive National Nutrition Monitoring System. This Plan follows the March 1978 submission of a proposal for a Nutritional Status Monitoring System. It has been developed jointly by our two departments. We expect complete implementation of the central features of the Plan by 1987.

We have designated the Assistant Secretary for Health, DHHS, Dr. Edward N. Brandt, Jr., and the Assistant Secretary for Food and Consumer Services, USDA, Ms. Mary Jarratt, as the officials responsible for overseeing the progress of implementation activities. They will be happy to address any questions or comments concerning the Plan.

A similar letter is being sent to Congressman George Brown, Jr.

Sincerely,

John R Block

John R. Block
Secretary
Department of Agriculture

Dick Schweiker

Richard S. Schweiker
Secretary
Department of Health and
  Human Services

Enclosure

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JOINT IMPLEMENTATION PLAN

FOR A

COMPREHENSIVE NATIONAL NUTRITION MONITORING SYSTEM

DHHS-USDA

August 19, 1981

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PREFACE

On March 6, 1978, the Department of Health and Human Services (DHHS, then DHEW) and the Department of Agriculture (USDA) jointly submitted to Congress a document entitled "Proposal: A Comprehensive Nutritional Status Monitoring System." This proposal acknowledged the deficiencies in existing nutritional and dietarv assessment methods, delays in data analysis and publication of results, inadequate coverage of certain target groups and geographic areas, and inadequate evaluation of nutrition intervention programs. The proposal contained a series of recommendations for improved and expanded activities, as well as suggestions for expansion of the food-composition data base. It also identified areas in need of further study, especially dietary practices and consumer knowledge. Finally, it outlined several steps that should be taken to develop appropriate mechanisms to evaluate nutritional intervention programs. The proposal constituted an important working document for the two Departments.

Since submission of the 1978 Proposal, several significant events have occurred. Data collections for the second National Health and Nutrition Examination Survey (NHANES II) and for the most recent Nationwide Food Consumption Survey (NFCS) have been completed. Preliminary results from NFCS have been released and those from NHANES II are beginning to appear. DHHS and USDA have established various coordinating mechanisms, both formal and ad hoc, to identify and manage common areas of concern. In response to the 1978 "Proposal", the Congress instructed the two Departments to proceed to develop a plan for implementing the proposed monitoring system. The present document provides an implementation plan and a summary of current and prospective efforts to monitor the dietary and nutritional status of the U.S. population. The system will be referred to in this document as a National Nutrition Monitoring System (NNMS).

This report contains five sections. Section I presents the primary elements of the plan and the calendar for completion of the key events. Section II reviews the concepts shaping the goals and scope of nutrition monitoring. Special attention is given to the uses of nutrition monitoring and to the kinds of questions which such monitoring can and cannot answer. Current nutrition monitoring activities are reviewed in Section III, and the relationship of these efforts to the goals of a national nutrition monitoring system is discussed. In Section IV, reports of progress in each sector are given, plans scheduled for implementation are delineated, as well as plans that must be deferred. Section V summarizes the plan and describes the mechanism for coordinating the monitoring activities of the two Departments is described.

I. IMPLEMENTATION PLAN

Nutrition monitoring includes that set of activities which are necessary to provide regular information about the role and status of factors which bear on the contribution that nutrition makes to the health of the American people. As such, the Federal Nutrition Monitoring System is a complex assortment of interconnected activities conducted periodically. The activities fall into five categories, discussed in greater detail later. The five categories are:

- health status measurements
- food consumption measurements
- food composition measurements
- dietary knowledge and attitudes assessments
- food supply determinations

At the heart of the system are the National Health and Nutrition Examination Survey (NHANES) and the Nationwide Food Consumption Survey (NFCS). NHANES is conducted periodically by the National Center for Health Statistics of the Department of Health and Human Services (DHHS). NHANES consists of a series of surveys of representative samples of the U.S. population. The surveys include health histories, physical examinations, laboratory measurements, and a 24-hour dietary recall. Analyses of the resulting data provide assessments of the health and nutritional status of the U.S. population. Two surveys have been completed -- NHANES I (1971-1974) and NHANES II (1976-1980).

The NFCS has been conducted at roughly 10-year intervals by the Consumer Nutrition Center of the Department of Agriculture (USDA). NFCS consists of a household survey of food use and an individual survey of food consumption. Both surveys are based on a national probability sample of U.S. households. The data collected include the kinds, amounts, and cost of food used by households during a 7-day period and the actual food consumed by household members during a 3-day period. Analyses of survey data provide assessments of the adequacy or nutrient intakes of the U.S. population and population segments.

In order to incorporate NHANES and NFCS into a truly operational national nutrition monitoring system, two steps need to be taken -- better integration of the two surveys and a system for evaluating and reporting on the dietary and nutritional status of the U.S. population. These steps will broaden the range of comparable information which is necessary for identification of the nutritional habits, status and needs of Americans. The implementation plan therefore has two primary objectives:

- Achievement of the best possible coordination of NHANES and NFCS, and

- Development of a reporting system to translate findings from NHANES, NFCS, and other specially-developed Federal monitoring efforts into periodic reports to Congress.

A. IMPROVING COORDINATION OF NHANES AND NFCS

This objective will be realized by the development of coordinated and comparable survey designs and by the maintenance of close liaison between the directors and technical staffs of the two surveys. With a compatable survey design certain results of NHANES and NFCS can be analysed jointly and compared. Together, these surveys will comprise the foundation of the national monitoring system. They will provide on a regular basis important data on the nutritional health of a national sample of the population together with comprehensive information about U.S. food consumption patterns.

To implement this objective, the Assistant Secretary for Food and Consumer Services, USDA, and the Assistant Secretary for Health, DHHS, will undertake the following steps:

- Develop a compatible survey plan based on current NFCS and NHANES sampling procedures. This work, to be undertaken by an NFCS-NHANES Coordination Committee, should be accomplished by the end of FY '82. As part of the information gathering stage of this committee's work, DHHS and USDA will sponsor two data users conferences. The conferences will review the continuing and emerging needs for information on dietary intakes, household food consumption, and nutritional status. Participants will include data users in Government, academia and industry.

- Convert the individual intake portion of the NFCS to a longitudinal individual intake survey in FY '85. Based on field tests carried out in FY '83-84, USDA will initiate a longitudinal survey of dietary intakes of individuals.

- Conduct in FY '87 the first coordinated NFCS-NHANES survey, based on previous research and field-tests undertaken in FY '83-'85.

B. DEVELOPMENT OF AN EVALUATION AND REPORTING SYSTEM

Implementing an evaluation and reporting system to integrate into common reports the results of the several component nutrition monitoring activities will be the responsibility of a DHHS-USDA Joint Nutrition Monitoring Evaluation (JNME) Committee. Members of the Committee will be appointed by the Assistant Secretary for Health, DHHS, and the Assistant Secretary for Food and Consumer Services, USDA. The Committee will develop reports on the nutritional status of the population to be issued to Congress jointly by the two Departments at three year intervals (Appendix 1). The reports will evaluate the findings of NFCS, NHANES, and other Federal nutrition monitoring efforts. The Committee's reports will address in detail the nutritional health and dietary status of the general population and certain priority subgroups. The Committee will assess the current state of knowledge about nutrition monitoring, identify deficiencies and special areas of need in the system, recommend more appropriate approaches, and eliminate any unnecessary duplications of effort. Factors which may have influenced nutritional health and dietary status will be identified and reported. The first report will be issued in FY '84.

Both USDA and DHHS carry out a variety of activities in addition to NHANES and NFCS that make significant contributions to our understanding of the dietary and nutritional status of Americans. Examples of such activities are the Total Diet Study conducted by the DHHS's Food and Drug Administration (FDA), and the determination of the nutritive value of the U.S. food supply made by USDA's Human Nutrition Information Service (HNIS). The JNME Committee will evaluate the findings of these monitoring-related efforts and, where appropriate, include them in their reports. The array of monitoring activities conducted by the two departments is described in sections III and IV of this document.

C. CALENDAR OF EVENTS

Noted below is the calendar of events for the critical features of these implementation activities.

1976-80		National Health and Nutrition Examination Survey II (NHANES II) conducted on a representative sample of the civilian, noninstitutionalized U.S. population, ages six months to 74 years, comprising over 20,000 persons.
1977-78		Nationwide Food Consumption Survey included a probability sample of the 48 conterminous States, samples of Alaska, Hawaii and Puerto Rico, and special samples of elderly and low-income households.
1981	(October)	Appointment of NFCS-NHANES Coordination Committee by ASFCS-USDA and ASH-DHHS, from DHHS, USDA, other Federal agencies concerned with monitoring, and users of survey data outside the Federal government. The committee will recommend survey designs for NFCS and NHANES that are coordinated to the maximal extent possible.
1981	(November)	Appointment of a DHHS-USDA Joint Nutrition Monitoring Evaluation (JNME) Committee by ASH-DHHS and ASFCS-USDA.
1981-82		Study of longitudinal measures of individual intakes to test alternative methods for collecting dietary intakes of individuals at intervals up to a year. To be conducted by HNIS, USDA.
1982	(September)	NFCS-NHANES Coordination Committee to forward completed report and recommendations to ASFCS-USDA and ASH-DHHS.
1982		Longitudinal study of the effects of infant feeding practices on morbidity and growth in the first year of life. To be conducted by HNIS in consultation with FNS of USDA and coordinated with appropriate units of DHHS.

1982	(January and July)	Monitoring Data Users Conferences to be sponsored by DHHS and USDA. Participants to include data users in Government, academia and industry.
1982-84		Hispanic Health and Nutrition Examination Survey (HHANES) to be undertaken; it is anticipated that 12,000-15,000 Hispanics in selected locations in the Southwest, Florida, New York, Illinois and perhaps other areas will be examined over a 24-30 month period beginning July 1982.
1983-84		Field test best methods for collecting dietary data on individuals. HNIS, USDA.
1983-84		Field test best methods for determining household food losses. HNIS, USDA.
1984	(November)	Completion and forwarding to Congress of first Joint DHHS-USDA report on Federal nutrition monitoring activities.
1984-85		Longitudinal individual intake survey, replacing individual portion of decennial NFCS, USDA. To be conducted by HNIS.
1984-85		To resolve methodologic problems, DHHS and USDA will conduct a joint pilot study in two locations to test maximal coordination of HHANES and NFCS.
1987		Conduct of first coordinated NFCS-HHANES survey.

III. NUTRITION MONITORING: GOALS AND SCOPE

The goals of the National Nutrition Monitoring System, as adapted from the 1978 USDA/DHEW proposal, are as follows:

- o Provide the scientific foundation for the maintenance and improvement of the nutritional status of the U.S. population and the nutritional quality and healthfulness of the national food supply.
- o Collect, analyze and disseminate timely data on the nutritional and dietary status of the U.S. population, the nutritional quality of the food supply, food consumption patterns and consumer knowledge and attitudes concerning nutrition.
- o Identify high-risk groups and geographic areas, as well as nutrition-related problems and trends, in order to facilitate prompt implementation of nutrition intervention activities.
- o Establish national baseline data and develop and improve uniform standards, methods, criteria, policies, and procedures for nutrition monitoring.
- o Provide data for evaluation of the implications of changes in agricultural policy related to food production, processing and distribution which may affect the nutritional quality and healthfulness of the U.S. food supply.

The term "nutrition monitoring" refers to a broad range of activities designed to assess periodically and systematically the nutritional and dietary status of the American people and the factors affecting them. The primary nutrition monitoring activities are assessments of nutritional and dietary status through nationwide surveys. Supporting activities include continuous updating of food composition data and research on human nutrition requirements and nutritional assessment methods. Examples of other related activities are regular determinations of morbidity and mortality health statistics, the nature of the food supply and its nutrient content, food retail sales patterns, and studies of public knowledge, attitudes, and preferences concerning foods.

Ultimately the various nutrition monitoring functions which are part of a comprehensive national monitoring system derive their importance from the fact that changes in the factors being monitored might have a bearing on health status. Hence, nutrition monitoring entails the periodic measurement of certain indicators of nutritional status (for example, height and weight and the concentrations in blood of vitamins and minerals) and the measurement of indicators of dietary status (the nutritive value of food eaten) in order to determine what changes have occurred over time. Such monitoring can be conducted on an individual, on a group of individuals, or on a population.

A major limitation of many nutritional and dietary status measurements is lack of specificity of assessment methods and standards. Even so, when applied to populations for comparison between groups, the methods and standards currently available allow broad conclusions about the nutritional and dietary status of the population.

But nutrition monitoring extends beyond the measurement of nutritional and dietary status. It includes efforts to provide information on a regular basis about the kinds and amounts of foods eaten by Americans; shifts in people's knowledge about and preferences for foods, both of which influence food choices; the composition of the foods eaten, including their content of essential nutrients, the types and extent of fortification, and the presence of any contaminants which may influence nutritional quality; and the availability of food for consumption, which may in turn be affected by such factors as crop strategies, commodity prices and support policies.

Nutrition monitoring, then, is not a simple task, but a complex and interconnected set of determinations which may be characterized by five major categories of measurements (summarized in Appendix 2):

- health status measurements
- food consumption measurements
- food composition measurements
- dietary knowledge/attitudes assessments
- food supply determinations

An important limitation of nutrition monitoring should be noted. A monitoring system designed to provide information systematically and reliably over time about the nutritional and dietary status of Americans cannot furnish definitive answers on the effect of nutrition intervention programs. (Information about participation in food programs, however, should be collected as one of the many variables that could affect nutritional and dietary status).

Food programs -- such as food stamps, meals for the aged, and food supplements for women, infants and children (WIC) -- are offered to diverse populations which often are undergoing concurrent changes in other respects. Also, all such programs have objectives in addition to improvement of the diet. Consequently, unless assessments of these programs are designed as carefully controlled experiments from the outset, efforts to evaluate them will be frustrated by the presence of a large number of intervening variables that confound the interpretation of data. This does not mean that questions concerning the effect of a particular intervention program on the nutritional status of participants cannot be answered. However, answers require specific studies in which data for control groups or for the population prior to intervention are collected and compared with data for participants.

III. CURRENT EFFORTS

Of the many activities contributing to the NNMS, NHANES and NFCS constitute the core. The following discussion is organized according to the categories of measurement and related research that collectively comprise nutrition monitoring. Descriptions of NHANES and NFCS are found on pages 14 and 15. Other activities that contribute to or support the NNMS are discussed in relation to the most appropriate category.

A. HEALTH STATUS MEASUREMENTS

NHANES: The National Health and Nutrition Examination Survey (NHANES), conducted periodically by the National Center for Health Statistics (NCHS), is the cornerstone of Federal efforts to monitor the overall nutritional status of the American people. NHANES consists of a series of surveys carried out on a representative sample of the entire United States population, ages 1 to 74 years, and comprising over 20,000 persons each. The surveys, which include health histories, physical examinations and laboratory measurements, provide information on national health and nutritional status. Two surveys have been completed -- NHANES I (1971-1974) and NHANES II (1976-1980).

Through NHANES, physical and biochemical measurements are made which provide information about a number of nutrition-related conditions, including growth retardation, anemia, obesity, heart disease, hypertension, diabetes mellitus, vitamin and mineral deficiency or toxicity, and heavy metal and pesticide exposures.

The types of measurements include physical examinations, anthropometry, blood cell assessments, biochemical analyses of blood and urine, x-rays, and functional assessments, as well as a health history. (FY '81 cost = $3.3 million, excluding NCHS overhead.*)

Other NCHS Surveys: Beyond NHANES, a number of NCHS surveys and record systems provide important information for assessing the health effects of nutritional status -- i.e., the National Vital Statistics System, the National Natality and Fetal Mortality Surveys, the National Survey of Family Growth and The National Health Interview Survey. An example of available data includes those from the 1980 National Natality and National Fetal Mortality Surveys now being conducted. These cover topics such as maternal health, prenatal and postpartum visits, characteristics of the infant, perinatal hemoglobin/hematocrit levels, weight, height, breast-feeding, special diets, and pregnancy complications such as obesity and diabetes. The 1981 National Survey of Family Growth will produce information on whether children were, or are currently being, breast-fed and the duration of breast-feeding. Information will also be available on birth weight as reported by mothers. These surveys will provide direction for other monitoring activities such as those for food consumption and dietary attitudes. (FY '81 cost = $16.0 million, including NCHS overhead of which only a portion is directly related to nutrition.)

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*Subsequent figures exclude overhead unless otherwise stated.

CSSS: The Nutrition Division, Center for Health Promotion and Education, Centers for Disease Control (CDC) also contributes to nutrition monitoring with a nutrition surveillance program, called herein the Coordinated State Surveillance System (CSSS), to monitor the nutritional status of high risk pediatric and pregnant populations through the collection of measurements readily available such as height, weight, hemoglobin and/or hematocrit. The system utilizes information from service delivery programs operated by selected State and metropolitan health jurisdictions to provide data on the prevalence of major nutritional problems in the targeted groups. The composition of the groups under surveillance is determined by their socioeconomic status, their proximity to a nonprivate outpatient clinic and the fact that selected State health departments are cooperating with the CDC program in obtaining and utilizing nutrition-related data. The indicators of health status measured by the CSSS are not comprehensive but, rather, are limited to a relatively few indices related to nutrition problems identified in the NHANES activities. The CSSS provides information about the prevalence of overweight, underweight, retarded linear growth and anemia among high-risk children. In addition, pregnant women are kept under surveillance with attention to indicators such as anemia, abnormal weight changes, fetal survival, birth weight of the child and whether breast or bottle feeding is used and for how long. (FY '81 cost = $2,626,000)

Health Service Programs: Nutritional assessment with respect to height and weight measurements as well as hemoglobin or hematocrit determinations is undertaken directly through DHHS health service delivery programs (i.e., Maternal and Child Health (MCH) and Indian Health Service (IHS) programs administered by the Health Services Administration (HSA), the Early and Periodic Screening Diagnosis and Treatment (EPSDT) Program administered by the Health Care Financing Administration (HCFA) and Head Start administered by the Office of Human Development Services/Administration for Children, Youth and Families (OHDS/ACYF). Presently, data from these assessments are used primarily to determine protocols in the treatment of individual patients but the data are available for monitoring through a national nutrition monitoring system. Guidelines on prevention, screening and follow-up of the nutritional disorders of children have been widely disseminated to health care providers in the private and public sectors by the Office of Maternal and Child Health, HSA.

B. FOOD CONSUMPTION MEASUREMENTS

NFCS: USDA's periodic Nationwide Food Consumption Survey (NFCS) conducted by the Human Nutrition Information Service (HNIS) is the cornerstone of Federal efforts to monitor overall dietary status of the American people. National surveys have been conducted in 1935-36, 1942, 1948, 1955, 1965-66, and 1977-78. The year-long NFCS 77-78 included both household food consumption (7-day recalls) and dietary intake (3-day) components. In the NFCS 77-78, information was obtained from 15,000 sample households in the 48 States. More than 30,000 household members provided information on all foods and beverages ingested at home and away from home (1-day recall followed by 2-day food records).

In 1977-78, supplemental NFCS surveys were conducted for the first time in Alaska (urban) and Hawaii (about 1,200 households each) and in Puerto Rico (over 3,000 households). Also, supplemental surveys were conducted in the 48 States among the elderly population (5,000 households) and low-income households receiving or not receiving food stamps (over 4,200 households). In 1979-80, a second food consumption survey among low-income households (over 3,000) was conducted to determine shifts in food consumption and nutritional adequacy which may have been associated with higher price levels and changes in Food Stamp Program regulations.

The NFCS 77-78 and supplemental surveys provide measures of levels and shifts over time in the food consumed and in the nutritional content and adequacy of consumption of households and individual household members. In both household and individual intake surveys, nutritional values were derived for food energy and 14 nutrients, based on USDA food composition data files. Recommended Dietary Allowances (RDA) published by the Food and Nutrition Board, were used in the development of indicators of nutritional adequacy of diets and household food consumption. Also, information was provided on foods by source, type, and cost, and on socio-economic and other factors associated with food selection, consumption patterns, and eating practices. NFCS 77-78 is multipurpose, providing food and diet-related information used in a variety of programs--food and nutrition, education, economic, agricultural, regulatory, and health-related programs--and by the food industry and other nongovernmental groups. These surveys provide information fundamental for tracking foods through the consumption process, in forms and quantities, from acquisition for household use to final ingestion, and in evaluating their contribution to the total diet. (FY '81 cost = $3.8 million, excluding overhead.)

NHANES: As part of the survey component, extensive information on dietary status is provided through NHANES. In private interviews with trained dietitians information is collected on eating patterns, food consumption (24-hour dietary recalls), source of foods (home, restaurant, etc.), frequency of consumption of 26 grouped foods, use of supplements, use of salt at the table and frequency of eating away from home. Intakes of energy and 17 nutrients are determined for 28 age-sex groups. This dietary information was collected for both NHANES I (1971-1974) and NHANES II (1976-1980). These surveys, carried out on representative samples of the entire U.S. population, ages one to 74 years, comprised over 20,000 persons each. (Cost noted above)

Food Usage Survey: Using commercial market research data bases (A.C. Nielsen Co.), the Food and Drug Administration (FDA) conducts on a biennial basis, a survey of a statistically representative sample of products representing major food classes from the total packaged food supply, including acquisition of all labels and data interpretation on a share-of-market sales basis. The survey involves approximately 1700 individual food brands representing about 44 percent of the packaged food supply in retail dollar terms, which in turn is generalizable to the total packaged food supply. The ingredient data are the basis for the FDA food ingredient data bank, and are utilized for multiple speci ' studies. By this tracking system, significant changes in aggregated public purchasing

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patterns and the food industry's reactions are rapidly identifiable. For example, changes in public purchasing practices associated with avoiding specific components of foods (sugars, food additives, etc.) may be quickly identified. In a manner analogous to tracking of major food classes, the same types of data bases are used to measure changes in aggregated public purchasing practices of nutritionally-modified foods, e.g., fortified foods, low sodium and reduced sodium foods, low cholesterol and reduced calorie foods, etc. Through this means, public responses to nutrition information and education programs, new labeling approaches, media coverage and other societal events are quantitatively measurable. This type of information permits estimates of the impact of programs initiated by government and the private sector in the interest of improving nutritional health. (FY '81 cost = $105,000)

C. FOOD COMPOSITION MEASUREMENTS

Nutrient Data Bank: The USDA Nutrient Data Bank (NDB) is the major mechanism for collecting, evaluating, storing, and collating nutrient composition data for individual foods. The task is substantial, given the fact that there are some 10,000 to 15,000 food items in the U.S. food supply and data are being acquired for 60 to 100 nutrients or other food components. Data are being collected and entered into the NDB on a continual basis, but the availability of data on some nutrients is limited by the lack of suitable methods. Sources of data include a number of Federal government laboratories, including USDA's Nutrient Composition Laboratory; university research under Government Sponsorship; and food nutrient analyses conducted by industry in support of the nutrition labeling program. The development of the NDB is keyed to the process of revising Agriculture Handbook No. 8, "Composition of Foods....Raw, Processed, Prepared," which is the standard reference table on nutrient composition. Of the 23 sections now planned, 7 have been completed and published. (FY '81 cost = $916,000)

Nutrient Composition Laboratory: This laboratory located in Beltsville, Maryland, provides essential data on the nutrient content of foods as consumed in the United States by (1) analyzing the nutrient content of foods with tested, dependable assay techniques, (2) developing either new or improved methods for the analysis of nutrients in foods, (3) developing sound sampling techniques to ensure that representative samples are analyzed, and (4) conducting research on the effect of food processing procedures and transportation and marketing methods, as well as home, institution, and restaurant food preparation procedures on the nutrient composition of foods. (FY '81 cost = USDA, $890,000 and NIH, $712,000)

Total Diet Study: FDA conducts annually its Total Diet Study to derive average consumption of important components of the diet. The study provides a tracking system for specific indicators of significant changes in the nutritional quality of the national food supply. For example, through this study, FDA has documented the existence of a higher quantity than desirable of iodine in the food supply. The quantity of iodine is now being monitored, particularly for some of the food classes noted previously to have high levels, such as milk and cereal grain products. The scientific base for the Total Diet Study has been updated from food consumption data obtained in 1965 to the recently available NHANES II and NFCS data. Sampling is done in thirty urban areas in the United States and analyses for dietary content of seven minerals, e.g., iodine, iron, sodium, potassium, copper, magnesium, and zinc are performed. In addition, this is the only extant system for annual chemical analytical measurement of average intakes (also includes pesticides, heavy metals and environmental contaminants). The study is now being converted from the measurement of nutrients in food composites to measurements of nutrients in individual foods. Estimates of average nutrient intakes for many age groups will henceforth be possible. Approximately 235 individual foods are involved which represent about 90 percent of the total foods consumed in the U.S. Although analyses are currently limited to selected minerals, it is planned to monitor other nutrients in the future. In FY '82, this will involve 13 minerals and approximately 12,000 individual analyses. The changes in the FDA Total Diet Study will permit monitoring the nutrient composition of representative diets for infants, toddlers, teenaged males and females, adult males and females, and males and females older than 65 years of age. (FY '81 cost = $1,300,000)

Labeled Food Surveillance: The FDA has maintained since 1977 both a surveillance and a compliance program for nutrition labeling. A statistical sample of the 40 percent of processed foods which bear nutrition labels is analyzed for many nutrients on a continuous basis. Annually, approximately 300 foods are analyzed for an average of 8 nutrients, involving in excess of 2000 individual analyses. This surveillance program permits FDA to track the evolution of nutrition labeling in the food supply, assure necessary levels of accuracy of label values and identify segments of the industry which require encouragement. This activity also permits early identification by FDA of new fortification practices by industry. When combined with consumer studies, reasonable assessments of the value of nutrition labeling are possible. (FY '81 cost = $600,000)

D. DIETARY KNOWLEDGE/ATTITUDES ASSESSMENT

Public Attitudes Survey: Annually since 1978, FDA has conducted a survey based on a national probability sample of food purchasers to measure public attitudes, knowledge and practices about food and nutrition. About one half of the survey content is concerned with such matters as opinions about nutrition, food quality and food regulation and is repeated every year for the purpose of tracking changes over time. The other half involves new areas of interest or concern to the Bureau of Foods. This survey involves detailed interviews in the homes of approximately 1500 individuals primarily responsible for household food purchases, about 85 percent of whom are women and 15 percent men. Studies of this type permit rapid acquisition of knowledge as to public attitudes and practices relative to foods and nutrition, as well as estimates of their concerns and elements of confusion. It is through this mechanism that the predominance of avoidance practices in food purchases through use of food labels is clearly identified (e.g., avoidance of fats, sugars, etc.). In addition, assessments are made of the influence of nutrition misinformation and the public's ability to comprehend food label information. (FY '81 cost = $160,000)

NHANES: A limited amount of information is provided in this area through questions in NHANES about practices with respect to breast-feeding. (Cost noted previously)

NFCS: The periodic NFCSs are major sources of primary information on food-related behavior at both the individual and household levels. This information is used in support of USDA's continuing program of food and diet appraisal research. Such information facilitates the development of knowledge needed by consumers, policy groups, public agencies, educators, and other concerned professionals to improve the nutritional quality of diets of the American people, thereby improving the general health. This includes knowledge needed to identify factors (economic, social. dietary) affecting the quality of diets and to modify food habits and improve food skills and satisfactions. (FY '81 cost = $1.0 million, excluding overhead.)

E. FOOD SUPPLY DETERMINATIONS

Supply Data: USDA's Economic Research Service (ERS) estimates annually the quantities of various foods that "disappear" into civilian consumption. These estimates are derived from statistics on the production or marketing of farm products, foreign trade, and stock changes; the flow of foods through warehouses and/or retail markets; and ad hoc studies of special products. They are expressed as national averages per capita and show levels of food supplies each year since 1909 in food quantities and price-weighted indices.

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HNIS estimates the quantities of food energy (calories) and 13 nutrients provided by the per capita food supply each year. These data are vital in assessing the adequacy of the food supply and showing trends since 1909 in food and nutrient consumption relative to statistics on nutritional health and incidence of disease. (FY '81 cost = ERS $100,000 and HNIS $80,000)

Demand Studies: A variety of ERS activities contibute information about the nature of the national food supply and patterns of consumption. Of particular importance are economic and marketing information which permit evaluation of aggregate shifts in food consumption and price-consumption relationships. Efforts of this kind are important in assessing changing food consumption patterns and may presage nutritional problems. (FY '81 cost = $53,000.)

F. RESEARCH

A productive research base is important to provide a solid foundation for nutrition monitoring activities.

Nutritional Requirements and Methods for Assessment of Nutritional Status: Much of the technology available for the evaluation of nutritional status is relatively crude and cumbersome. Some nutrients are difficult to measure accurately in biological samples, and adequate biochemical norms and standards have not been developed. On the other hand, many of the older available norms have been rendered obsolete by improved technology and by the urgent need to establish more sensitive indicators of subclinical ("hidden") nutritional deficiency states. In comprehensive surveys the need to collect large blood samples, for example, discourages many potential participants and makes the work more difficult. Some important methods can only be applied within sophisticated facilities and cannot be utilized in the field. Thus it is important to develop new micromethods that are both sensitive and accurate. Similarly, it is widely recognized that the accuracy of methods for the measurement of dietary status needs to be improved. Since evaluation of the nutritional health of a population can be no better than the methods used, research must have a very high priority.

A variety of agencies support research efforts which contribute to the knowledge base. Few efforts, however, are specifically directed toward the development of improved methods for the evaluation of nutritional status and the definition of factors, forces and trends leading to inappropriate nutrition.

For DHHS, the National Institutes of Health (NIH) is the principal contributor to research on nutritional status. Such research is sponsored by several of the individual institutes (e.g., NCI, NHLBI, NIA, NIAID, NIAMDD, and NICHD), and includes studies that relate to requirements for essential nutrients throughout the life cycle, from fetal life to infancy, childhood, adulthood, and old age. The studies are carried out in normal subjects and in patients with various disease states. Relative to research on nutritional needs throughout the life cycle, NIH-supported research includes methods that measure nutrient concentrations; biochemical, anthropometric and maturational indices of nutritional status; dietary recall; and food composition studies.

Relative to normal adults, infants and children, studies on the requirements for essential nutrients include those on trace mineral requirements for zinc, chromium, silicon, and fluoride. A number of projects deal with improving methods for determining vitamin status under varying conditions in infants, children, and pregnant women. Clinical measures to determine vitamin D status in infants, vitamin B_6 needs in pregnancy, and other vitamin needs in long-term users of oral contraceptive agents are being examined. Studies involve assays for determining tissue storage of folate, pantothenic acid, and iron. Total NIH expenditures for research on nutritional status in FY '80 were $31 million and on research on vitamins $19.7 million. This research is an integral part of the ongoing NIH program in biomedical and behavioral nutrition research ($139 million in FY '80), and these two components are but two of the fifteen NIH special interest areas in nutrition. While not established or funded for the purpose of supporting a nutritional status monitoring system, some of the results of this research may be directly applicable to enhancing the accuracy or specificity of such a system, component measurements, or interpretation of data.

In conjunction with its continuing laboratory support of NHANES field programs, CDC's Nutritional Biochemistry Branch conducts technology development and application of more specific biochemical methods for assessing nutritional status, targeted at laboratory procedures that are more economical and require smaller biologic specimens in surveillance programs. Current projects include development of multiple measurements for trace elements and investigations of hair samples to replace blood specimens for these elements.

For USDA, a development in this area which deserves special mention is the recently inaugurated Western Human Nutrition Research Center in San Francisco, California. In addition, USDA has four other Human Nutrition Research Centers whose work bears directly on nutritional requirements and on methods for assessment of nutritional status. Two of these have been recently established for specific age groups of the population. The Children's Nutrition Research Center in Houston, Texas, is dedicated to the study of nutritional needs of pregnant and lactating women and of infants and children, with particular attention to the quantification of nutritional allowances and the attainment of optimal nutritional status. The Human Nutrition Research Center on Aging at Tufts University will examine the relationship between nutrition and aging. The remaining two Centers have established programs in operation. The Beltsville Human Nutrition Research Center is seeking a more complete definition of human requirements for essential nutrients. Current work is on methods to assess nutritional status with regard to vitamin B_6 and trace elements. It is also concerned with studies of the forms and biological availability of chromium, iron, and other trace elements. The Grand Forks Human Nutrition Center is developing recommendations for nutrient intakes by humans and is working to identify useful nutrient forms with particular attention to mineral requirements. Current work is on identifying factors which influence dietary requirements, determining metabolic abnormalities produced by mild deficiencies of certain minerals, and clarifying the essentiality of some ultra trace elements. Attention is also being given to developing techniques to facilitate studies of bioavailability of mineral elements. (FY '81 cost = $16.2 million, including overhead.)

Methods for Assessment of Dietary Status: A continuing program of research on methodology for large-scale food consumption surveys is underway in HNIS. In the household food consumption area, tests are being made on the use of computer terminals in conducting interviews. In the first tests, inflexibilities in the computer interviewing procedures resulted in unsatisfactory levels of respondent burden. Currently, efforts are focused on reducing the frequency of communications breakdowns and making the system operational. (FY '79 cost = $100,000.)

Research is being carried out on the methodology of collecting dietary intake data. The NFCS 77-78 data collection procedures are under study relative to possible sources of error in reporting food and beverage intakes. Also, comparisons are being made of HANES I and NFCS 77-78 dietary and anthropometric data for individuals to evaluate differences which may be associated with variations in methodology. Measures under study include intakes of alcohol and eleven nutrients (food energy, protein, fat, carbohydrate, calcium, iron, vitamin A, thiamin, riboflavin, niacin, and ascorbic acid), heights and weights, and frequency of eating. (FY '81 cost included in NFCS cost.)

A study of longitudinal measures of individual food intakes, initiated in FY '81, will test alternative procedures for collecting data at intervals over a period of up to 1 year and evaluate the applicability of such procedures in making national assessment of dietary status. In the 2-year study, repeat data collections will be carried out through the use of personal interviews, telephone calls, food records, mail-in diaries, and modifications or combinations thereof in nine different data collection methods. Differences in food reportings and nutritional values will be evaluated as well as participation rates, respondent burden, cost, and other factors relating to feasibility for use in large-scale dietary intake surveys. (FY '81 cost = $950,000, included in NFCS cost.)

FDA's methodologic work has focused on improved methods to measure nutrients in different foods, particularly trace minerals, fat-soluble vitamins, cholesterol derivatives and trans-fatty acids. FDA has supported development of improved methods to study the usefulness of serum ferritin to measure total body iron stores, as well as methods for environmental contaminants such as serum lead levels as related to calcium and vitamin D nutriture. (FY '81 cost = $622,000)

FDA also has an ongoing series of studies to develop simpler and faster methods to measure food intakes to circumvent current high costs of conventional food consumption surveys and to shorten time between field work and availability of data. Typical study areas include nationwide telephone methods, and repetitive short questionnaires to the same individuals over time. (FY '81 cost = $30,000)

Epidemiological Research in Nutrition: The role of food habits and the socioeconomic factors that influence food selection in health and disease are important components in epidemiological research, and various clinical trials using epidemiological tools are underway. In FY '80 NIH provided $18.4 million to support epidemiological research in nutrition including: evaluation of epidemiological procedures; studies of effects of early nutrition on physical and psychological development in defined populations; nutrition-related epidemiological studies on maturation and reproductive function; nutrition surveys of target or special population groups; and epidemiological correlation of food intake to disease states.

To assure that nutrition components of clinical trials use methods that produce reliable and valid dietary intake data and to assure compatibility of data among the trials, an evaluation has been undertaken of the dietary data collection system developed and shared through the NHLBI by the Lipid Research Clinics and the Multiple Risk Factor Intervention Trial (MR FIT).

Research also is being done in the following areas: the clinical correlates of vitamin D status in infants; early malnutrition and immunologic competence; the development of obesity in children; the effect of diet on the age at which children reach menarche; and maternal nutrition, birth interval, and lactation, i.e. milk production.

Some of the insights most important to understanding the relationship between diet and disease--hence, their importance to nutritional status--have come as a result of these population-based epidemiological studies.

IV. IMPLEMENTATION ACTIVITIES

Especially through NHANES and NFCS much has already been accomplished to implement the elements of a national nutrition monitoring system. The relevant activities since 1978 are discussed below, with specific notation of the deficiencies which have been corrected since that time and those which have been deferred.

A. HEALTH STATUS MEASUREMENTS

Deficiencies: In the 1978 Joint Proposal the following items were noted as deficiencies in program activities with respect to measurement of health status: the slow speed at which the NHANES data were processed; insufficient capability to identify special problems of high risk groups and areas (e.g., infants, pregnant women, people of low socioeconomic status, Hispanics, American Indians, residents of Appalachia); inadequate coverage of those groups which were identified; inability to produce adequate information on the health effects of potentially toxic nutrients (e.g., iodine); the lack of routine reporting from states and service delivery programs; and inability to produce definitive information about the effectivess of nutrition intervention programs.

Progress: Since 1978 a number of steps have been initiated:

- The National Center for Health Statistics has published or developed manuscripts for about 30 reports based on NHANES I data. The topics covered include information on the prevalence of overweight, severe obesity, hypertension, dental caries, anemia and elevated serum cholesterol levels. The relationship of dietary intake to dental health, measures of anemia, and cardiovascular disease and risk factors has been examined and reports will be published in 1981. Descriptive information has been provided on vision, hearing, anthropometric measures, blood levels of nutrients, and food consumption patterns. In addition approximately 500 NHANES I data tapes have been distributed to universities, other research institutions, private companies and government agencies.

o NHANES II field work was completed in February 1980 with approximately 21,000 persons having been examined out of about 28,000 individuals identified as sample persons. The data are currently being evaluated, documented and prepared for analysis. All data sets have been or are being prepared for release beginning in the fall of 1981. All the data are expected to be available on microdata tapes by the end of 1982. Several preliminary reports from NHANES II have been released covering lead levels in blood, blood glucose levels, blood and urine measures of exposure to pesticides and blood levels of copper and zinc. Whereas it has taken 6 years after survey completion to process NHANES I data, NHANES II data collection was completed in February 1980 and the final edited and weighted demographic and dietary data and some biochemical, hematological, and anthropometric data will be available shortly. Several publications from NHANES II will be prepared in 1981, but most substantive reports will be undertaken in 1982-1984. Publication of the following reports of the analyses of NHANES II data is scheduled for FY 1981-82:

  - Lead levels in blood of persons 1-74 years
  - Carbon monoxide exposure in the U.S. population
  - Dietary intake source data, United States
  - Blood pressure levels of persons 6-74 years
  - Diabetes and impaired glucose tolerance of adults 20-74 years
  - Biochemical findings for selected age groups 1-74 years of age-nutrition-related hematologic and biochemical findings
  - Caloric and selected nutrient intakes and meal patterns for persons 6 months-74 years
  - Serum cholesterol and triglyceride levels in adults 20-74 years
  - Iron status and selected correlates such as prevalence of anemia
  - Obesity in adults 20-74 years and trends in prevalence of obesity 1960-62, 1976-80

- NCHS is proceeding with the detailed planning of a Hispanic Health and Nutrition Examination Survey (HHANES). It is anticipated that 12,000-15,000 Hispanics in selected locations in the Southwest, Florida, New York, Illinois and, perhaps other areas will be examined over a 24-30 month period beginning in June 1982. Health and nutritional status estimates are planned separately for Mexican-Americans, Puerto Rican-Americans, and Cuban-Americans.

- Fourteen states and three large metropolitan health jurisdictions were participating in the CDC Coordinated State Surveillance System in March 1978. The reporting jurisdictions encompassed some 480 counties and 900 clinics and provided data from about 350,000 screening and follow-up visits. By the end of 1981 it is expected that 35 states will be participating with data submitted from approximately 1,200 counties and 2,500 clinics with an annual volume rate of approximately 1,000,000 records per year.

- The CDC produces an annual publication entitled "Nutrition Surveillance" that makes available nutrition-related data collected by state and local health departments during their conduct of a variety of nutrition and health programs, i.e., well-child care, WIC services, EPSDT, Head Start and others. Monthly and quarterly tabulations and reports are made available to participating clinics for use in assessing the prevalence of nutrition problems, identifying sudden changes in the prevalence and nature of these problems and identifying technical and management problems related to health care delivery. On an annual basis special analyses and tabulations are prepared in collaboration with the states to aid them in program planning and resource allocation.

- A mechanism to monitor the prevalence of common nutrition-related problems in high-risk populations of pregnant women was initiated by CDC in 1979. Presently 12 states participate in the pregnancy nutrition surveillance system with records submitted on approximately 24,000 pregnancies.

- The CDC now furnishes data management expertise and/or computer software packages to assist 5 states in processing and analyzing their own data.

- In 1980 a three year contract was awarded by CDC to the Detroit City Health Department to establish a nutrition surveillance "sentinel site" in a representative, low income inner city area to provide quality information continuously on the prevalence of nutrition-related problems among the population residing there. The sentinel site can provide an "early warning" on the occurrence of potential nutrition problems, facilitate decisions for targeting resources, measure the quality of services provided, establish priorities and evaluate programs. Other sentinel sites in selected urban and rural areas of the U.S. are expected to be added.

- CDC is proceeding with plans to initiate a series of local assessment surveys beginning in the fall of 1981. The results of these surveys will provide key insights into the degree to which surveillance information reflects the nutritional status of the community as a whole, the degree of underutilization of the clinics, and the potential accuracy of nutrition surveillance data.

- The CDC designed and conducted a medical record survey to obtain nutrition related data on 821 Southeast Asian refugee children arriving on the West Coast between July 1979 and June 1980. The refugee group was found to be highly anemic and stunted but did not appear greatly wasted. A further study is planned for refugees.

Deferred: The following activities are under study, but deferred for the time being:

- Accelerated data release effort for NHANES II and other NCHS nutrition related data beyond the improvement already established.

- Enhanced NHANES II and other NCHS nutrition-related analytic efforts through university and research contracts.

- Assessment of nutritional and health status of other high risk groups (e.g., the elderly) as well as individuals in high priority geographic areas (e.g., residents of Appalachia).

- Implementation of a routine reporting system on the nutritional status of clients of Federal health service delivery programs.

B. FOOD CONSUMPTION MEASUREMENTS

Deficiencies: In the 1978 Joint Proposal, the following items were noted as deficiencies in program activities with respect to measurement of food consumption: the slow speed at which the NFCS and NHANES data were processed; insufficient coordination and interchangeability of the data bases for NFCS and NHANES; the infrequency of the NFCS survey; the lack of information on high risk groups (infants, pregnant women, American Indians, migrants); the inability to determine adequately the intake of potentially toxic nutrients (e.g. iodine); inability to identify patterns in institutional food usage; and inability to detect food fads and quackery.

Progress: Since 1978, a number of steps have been initiated:

- o It has been agreed that NFCS and NHANES will use a sampling frame with common definitions to enhance comparability of data. This will be initiated with the next NHANES survey in 1987.

- o Efforts of NHANES and NFCS targeted to the same special population groups will be scheduled to cover these groups in the same time period, beginning in 1982 with the Hispanic Health and Nutrition Examination Survey (HHANES).

- o HNIS conducted in 1979-80 a second survey of food consumption (Low-Income II) in households with incomes comparable to those surveyed in 1977-78 (Low-Income I) to assess the effects of inflation and changes in Food Stamp Program regulations.

- o Complete sets of computer tapes with data from NFCS 77-78 and supplemental surveys were made available for public distribution through the National Technical Information Service (NTIS) of the Department of Commerce in mid-1980.

- Advance reports based on NFCS household food consumption were published for the continental United States, Alaska, Hawaii, Puerto Rico, and low-income households. The first of a series of statistical handbooks on household food consumption was submitted for publication in mid-1981. During November and December 1980, available resources in HNIS were applied to expediting preliminary tabulations and analyses of data from the household phases of Low Income I and Low Income II. Information was provided to the Office of Management and Budget, the Congressional Budget Office, congressional committees, and the Food and Nutrition Service, as requested.

- In the individual food intake sector of NFCS, advance reports were published on dietary intakes in the 50 States. Work was begun on evaluating seasonal food consumption patterns reported in the year long NFCS survey. In July 1981 work was started on the first of several statistical handbooks pertaining to food and nutrient intakes in the United States. Based on NFCS data, intake of added caloric sweeteners by men, women, and children of different ages and of bioavailable iron by children were estimated and reported. Studies of intakes of cholesterol, sodium, and caffeine were initiated.

- A report on amounts of commonly used foods consumed per day and per eating occasion was submitted for publication in August 1981.

- FDA surveyed a national probability sample of consumers to estimate consumer use of dietary supplements, to determine the type of supplements consumed and the specific consumption patterns. The survey, to be completed in FY '81, will be repeated periodically to estimate changes over time.

- HNIS initiated a longitudinal study of the effects of infant feeding practices on morbidity and growth in the first year of life in consultation with USDA's Food and Nutrition Service, in FY '81.

Deferred: The following activities are under study, but deferred for the time being:

- Annual survey of infant feeding practices (FDA).

- Two pilot studies in FY 1983-85 to evaluate methodology for coordinating NHANES-NFCS efforts in FY 1987 depending on evaluation funding availability during this period.

C. FOOD COMPOSITION MEASUREMENTS

Deficiencies: In the 1978 Joint Proposal the following items were noted as deficiencies in program activities with respect to measurement of food composition: the limited scope of nutrients and commodity groups for which food composition was well defined; the limited data base for total diet nutrient content; and the limited data base for dietary nutrient content in institutional meals and retail meals.

Progress: Since then, a number of steps have been initiated:

- The Nutrient Data Bank continues to be expanded by gathering data from all sources including academia and industry, on all foods, to include additional nutrients and other substances such as dietary fiber.

- A contract has been initiated to conduct a review by experts of the operation and design of the NDB for the purpose of improving the efficiency of operation.

- Revision of Agriculture Handbook No. 8 (AH-8) is proceeding by food groups.

- Studies will determine yield and retention factors for nutrients for various steps of processing and preparation of foods. Other studies compare the results of the nutrient composition of component foods as calculated from ingredients to laboratory analyses of the final product.

- A Standard Reference Data Base -- a computerized version of updated AH-6 tables -- was created for use by researchers with computer facilities.

- A computerized recipe file for composite items reported in the 1977-78 NFCS is in preparation which will link the nutrient information to the components listed in the Standard Reference Data Base.

- The USDA Nutrient Composition Laboratory has been provided new facilities where a large number of analyses can be conducted using greater automation.

- FDA has assessed biennially, by means of a food surveillance program, the percentage of packaged food products that bear nutrition labeling, the accuracy of such labeling, and the scope and magnitude of food fortification. Utilizing commercial market research data bases, FDA monitors changes in public purchasing practices (e.g., low cholesterol and reduced cholesterol foods). This program permits early identification of new fortification practices by industry and contributes to an understanding of changes in the nutritional quality of the national food supply.

- In the Total Diet Study FDA has expanded the number of nutrients and toxic substances analyzed in food groups to 20 per year and increased the number of age-sex groups to include other important population segments (teenagers and elderly).

- FDA and USDA, through frequent consultation, have encouraged industry to extend their analyses to include nutrients not presently declared on nutrient labels (e.g., sodium, potassium and copper).

- NIH has supported food analyses for fatty acids and cholesterol (performed at the Beltsville Human Nutrition Research Center) and, in cooperation with HNIS-USDA and the food industry, has developed a food table for calculating nutrient intakes for special studies.

Deferred: The following activities are under study, but deferred for the time being.

- FDA completion of full nutrient analysis, verification of label claims and review of other characteristics of all infant formulas currently marketed.

- FDA programs for surveillance of nutrient content of foods served in fast-food establishments, institutional food service systems, restaurants and cafeterias.

- HNIS analysis of additional prepared foods (home and institution) and other foods on demand to fill data gaps for revision of AH-8.

- FDA assessment of the use of new ingredients in foods for the general public which contain substances such as enzyme inhibitors, goitrogens, and hormones that can cause nutritional and physiological abnormalities when improperly processed.

- HNIS and FDA inclusion of data in the [illegible] on constituents of foods which may have public health significance, e.g., arsenic, nickel, lead, cadmium and mercury.

D. DIETARY KNOWLEDGE/ATTITUDES ASSESSMENT

Deficiencies: In the 1978 Joint Proposal the following items were noted as deficiencies in program activities with respect to assessment of dietary knowledge and attitudes: lack of reliable information about consumer knowledge; lack of reliable information about consumer motivations in dietary choices; and insufficient information about the prevalence and effectiveness of nutrition labeling.

Progress: Since then, the following steps have been initiated:

- FDA has conducted an annual national survey of public attitudes, knowledge and practices concerning foods and nutrition by undertaking individual interviews based on detailed questionnaires. About one-half of the survey content is repeated each year to track changes over time.

- FDA has also initiated a biennial food product assessment program to establish the percent and food class distribution of packaged food products that bear nutrition labeling.

- HNIS has initiated a series of studies using NFCS data to identify factors associated with nutritional quality of diets. Some factors under study are meal patterns, frequency of snacking, eating out, use of convenience foods, household food cost, size and composition of household, economic level and location of household, participation in food stamp and school lunch programs, and employment of the female head of household.

- A national survey of food preferences and intakes among preschool and school-age children is being planned by HNIS for FY '82.

Deferred: The following activities are under study, but deferred for the time being:

- Target audience delivery by the media of nutrition-related public service advertising to be monitored by FDA in terms of reach and frequency. FDA to assess public service impact through consumer surveys of message comprehension and source attribution.
- Maternal infant feeding practices and determinants thereof to be surveyed by FDA.

E. FOOD SUPPLY DETERMINATIONS

Deficiences: The following have been noted as deficiencies in program activities with respect to food supply determinations: the inability to determine accurately levels of some nutrients in the food supply because of insufficient and unreliable data on food composition, fortification and enrichment; the inability to identify patterns in institutional food usage and the lack of understanding of the losses of food and nutrients that occur between the point of food supply measurement and the consumption of the food.

Progress:

- HNIS conducted special analyses of consumption trends for nutrients and certain dietary factors not included in the historical series. Those studied include zinc, fatty acids, cholesterol, and caloric sweeteners. As data become available from the Nutrient Data Bank, values used in the food supply analysis for the 13 nutrients have been updated and nutrients have been added.

- HNIS planned a survey to determine quantities of nutrients entering the food supply through fortification and enrichment to be conducted in 1982.

- HNIS funded a 2-year grant in 1980 to develop and test several methods for measuring household discard of edible food.

- ERS conducted studies of food use in public eating places and institutions and of eating behavior with respect to away-from-home eating based on proprietary data.

- HNIS is using NFCS data to study the kinds, amounts, and nutritive values of foods eaten away from home by men, women, and children of different ages and how away-from-home eating is associated with diet quality and socioeconomic characteristics of households.

- HNIS is using NFCS data to study the effects of use of convenience foods on the diets of U.S. households.

Deferred:

The following activity is under study, but deferred for the time being:

- Investigation by ERS-HNIS of methods for estimating losses of edible food from the point it is measured in food-supply statistics to the point at which it is ingested.

F. RESEARCH

Deficiencies: In the 1978 Joint Proposal the following items were noted as deficiencies in program activities with respect to the conduct of research in support of nutrition monitoring: the lack of epidemiological research targeted to identifying the relationship between nutrition and disease; insufficient analytical techniques to identify the potential toxicity of various nutrients; the inadequacy of population-wide nutritional indices, norms and standards; the lack of understanding of body mineral composition and vitamin stores; the slow speed and inaccuracy of methods for nutrient analysis; and the lack of information about the effects on nutrients of food storage, processing and cookin

Progress: Since then, a number of steps have been initiated:

- NIH, FDA, NCHS and CDC are continuing extensive research in the identification and validation of more sensitive, specific and cost-effective methods for the characterization of the nutritional and health status of individuals and population groups at high risk. NIH, NCHS, FDA and CDC are planning a conference in September 1981 to review the current status of nutrition assessment methodology, identify gaps and needs and recommend future research directions.

- NIH, FDA and USDA's Nutrition Research Centers are improving techniques for assessment of total body stores of essential nutrients, including minerals, as well as to develop uniform methods, standard procedures, standard data recording techniques and integrative methodologies applicable to large-scale surveys and program evaluations.

- NIH has initiated a large number of epidemiologic studies with significant nutrition components.

- NIH has undertaken a large number of studies with major components related to nutritional status and its measurement.

- NIH initiated a new National Program in Clinical Nutrition based on Clinical Nutrition Research Units (CNRUs) in FY '79. The CNRUs are expected to contribute to improvement of nutrition monitoring by generating new knowledge about nutrient requirements throughout the life cycle and by improving current methods and developing new ones for nutritional status assessment.

- NIH is sponsoring follow-up studies of NHANES I respondents to identify changes in health status, especially changes that might be related to nutrition variables.

- NIH has supplied funds to the Nutrient Composition Laboratory at USDA to pursue development of automated analytic techniques for direct analyses of food and improved methods for collecting, recording, and evaluating dietary data. Current clinical trials and epidemiological studies have provided the opportunity to develop, test, and refine methods for measuring nutrient intake in populations.

- With the establishment of the USDA's Center for Research on Human Nutrition and Aging at Tufts University, and the Children's Nutrition Research Center at Baylor College of Medicine and Texas Childrens Hospital, special interagency agreements came into existence between the new centers and the two NIH Institutes that have been supporting research on aging and maternal and infant nutrition, the National Institute on Aging and the National Institute of Child Health and Human Development, respectively.

- The CDC has completed the development of more specific and reliable methods for the analysis of vitamins A and E and the determination of serum iron using micro samples and is continuing work on the use of a large multi-element analyzer to measure levels of nutrients in various body tissues and fluids.

- HNIS initiated a study to further evaluate elements of reporting error in food and beverage intakes using NFCS 1977-78 data. Twenty-four hour recalls by 200 male volunteers and by knowledgeable members of each household will be compared with information over the same time period from unobtrusive observers.
- HNIS initated a study to compare dietary intake and anthropometric data from NHANES I and NFCS. Measures under study are intakes of alcohol and 11 nutrients, heights, weights and frequency of eating.
- The most widely used Government and commercial data series which measure food flows and consumption have been used to reconcile differences in estimates from NFCS and other series.
- A study was initiated by HNIS to determine effects of methodology differences on household food consumption as measured by expenditures in the 1971-72 Consumer Expenditure Survey and the 1977-78 NFCS.
- A study was initiated by HNIS to test alternative methods for collecting dietary intakes of individuals at intervals during a period up to a year, and evaluate them for applicability in making national assessments of dietary status through longitudinal and periodic surveys.

- HNIS coordinated studies of the appropriateness of alternative indices of nutritional quality of intakes based on the Recommended Dietary Allowances. These indexes are for use in analyzing data from NFCS and other dietary surveys.

Deferred: The following activity is under study, but deferred for the time being:

- FDA's extension of its extramural studies to utilize multiple year funding, especially for its contribution to the development of a model system for integrating health status and dietary status data.

V. SUMMARY

Two major steps will soon be taken toward the achievement of an integrated NNMS. These are: (i) greatly improved coordination of NHANES and NFCS, and (ii) development of a mechanism to evaluate and report the findings arising from Federal nutrition monitoring activities. In addition, much has already been accomplished toward the implementation of the relevant components of the joint proposal provided by DHHS and USDA in 1978. More information is now available -- or soon to be available -- about the nutritional status of the general population and of some high risk groups. Survey data for NHANES are being issued more rapidly, and plans are under way to shift the dietary intake phase of the NFCS to an annual survey. Cooperative research efforts are proceeding between the two Departments.

It is important to emphasize that the nutrition monitoring activities of DHHS and USDA complement each other. The DHHS activities generally emphasize health status and the relationship of health to nutrient intake; the USDA activities generally emphasize dietary status, the relationship of diet to socioeconomic factors, and assurance that U.S. food supplies will meet the nutrient needs of the population.

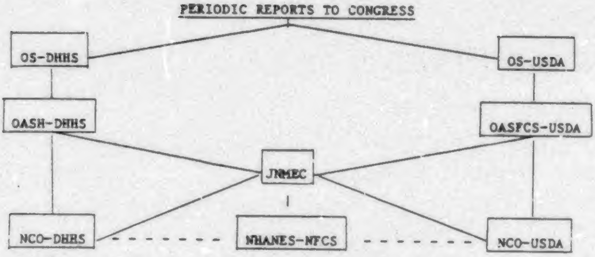
The most important nutrition monitoring activities of the two Departments -- the two dominant components of the system -- provide good examples. NHANES focuses on health status and includes food consumption components in its survey questions to provide better information on nutrition and health. It is designed to permit specific follow-up of identified individuals. NFCS is designed to provide information periodically about the food and nutrient consumption of households and individual household members. Data from these surveys are complementary but improvements can be made to facilitate use of the data in joint analysis. To make the surveys more compatible, plans are under way to develop a comparable sampling plan for NHANES and NFCS. This change and close cooperation of NHANES and NFCS staff in conducting methods research to determine the most appropriate data collection procedures and standards will assure coordination of these two undertakings.

The NNMS will improve as research refines the methodology for both the survey work and the field and laboratory analyses. It will improve as expertise is developed further at the state and local level for their activities.

And NNMS will improve as coordination between the participating units is enhanced. In this respect it must be noted that the two Departments are committed to improving the coordination of activities in nutrition monitoring through the establishment of two joint committees: one to develop a common sampling plan for NHANES and NFCS and the other to provide an evaluation and reporting mechanism. Focal points for facilitating these important linkages have been designated -- in DHHS in the Nutrition Coordinating Office of the Assistant Secretary for Health , and in USDA in the Office of the Assistant Secretary for Food and Consumer Services .

The perfect nutrition monitoring system can never be fully implemented. Neither the scientific basis nor the funding for such a system is foreseeable. This report has presented a plan for a feasible nutrition monitoring system, recognizing the state of the art with respect to the methodology of nutrition monitoring and given the necessity to consider costs.

Appendix 1



Surveillance of high-risk children and pregnant women (CDC)

Total diet study (FDA)

National health statistics on morbidity and mortality (NCHS)

Surveillance of the composition of labeled food (FDA)

Surveys of public attitudes concerning foods and nutrition (FDA)

Research on epidemiology, nutritional assessment, nutritional science (NIH, FDA, CDC)

Clinical Nutrition Research Units (NIH)

Surveys of groups at high risk nutritionally (HNIS)

Nutrient Data Bank (HNIS)

Human nutrition requirements and nutritional assessment methods research (ARS)

Nutrient composition laboratory (ARS)

Surveys of food purchasing, food preferences, and eating practices (HNIS)

Food and nutrient availability studies (ERS, HNIS)

Food economic and marketing studies (ERS)

ARS....	Agricultural Research Service, USDA
CDC....	Centers for Disease Control, DHHS
DHHS...	Department of Health and Human Services
ERS....	Economic Research Service, USDA
FDA....	Food and Drug Administration, DHHS
HNIS...	Human Nutrition Information Service, USDA
JNMEC..	Joint Nutrition Monitoring Evaluation Committee
NCHS...	National Center for Health Statistics, DHHS
NCO....	Nutrition Coordinating Officer
NIH....	National Institutes of Health, DHHS
OASFCS.	Office of the Assistant Secretary for Food and Consumer Services, USD
OASH...	Office of the Assistant Secretary for Health, DHHS
OS.....	Office of the Secretary
USDA...	U.S. Department of Agriculture

MEASUREMENT	TARGETED PROBLEMS	ACTIVITY	AGENCY RESPONSIBLE	FREQUENCY	SUBJECT GROUPS
Health Status Measurements					
physical exam	high blood pressure, heart disease, nutrient deficiencies (e.g., iodine, vitamin C, thiamin), obesity, energy-protein malnutrition (EPM)	NHANES CSSS	NCHS/DHHS CDC/DHHS	10 years* Continuous	GP, W, B, (H), Y, G, PW
anthropometry	growth retardation, obesity, underweight,	NHANES	NCHS/DHHS	10 years*	(H), Y, G, GP, W, B
	EPM	CSSS	CDC/DHHS	Continuous	PW, C
red and white blood cells	anemia	NHANES	NCHS/DHHS	10 years	GP, W, B, (H), Y, G
blood biochemistry	anemia, vitamin and mineral deficiencies or excesses, protein deficiency, hyperlipidemia, diabetes mellitus	NHANES	NCHS/DHHS	10 years	GP, W, B, (H), Y, G
		CSSS	CDC/DHHS	Continuous	PW, C
urine biochemistry	diabetes mellitus, kidney stones, pesticide exposure, proteinuria	NHANES	NCHS/DHHS	10 years	GP, W, B, (H), Y, G
		CSSS	CDC/DHHS	Continuous	PW
x-rays	osteoporosis, osteomalacia, nutrition-related heart and vascular diseases	NHANES	NCHS/DHHS	10 years	GP, W, B, (H), Y, G
functional assessment	heart disease, respiratory insufficiency	NHANES	NCHS/DHHS	10 years	GP, W, B, (H), Y, G
history	birthweight, infant feeding practices, symptoms	NHANES	NCHS/DHHS	10 years	GP, W, B, (H), Y, G
mortality/morbidity	heart disease, cancer, stroke, hypertension, diabetes mellitus, cirrhosis, etc. (general health status and trends)	NVS CDC-RFR (Risk Factor Reduction)	NCHS/DHHS CDC/DHHS	Continuous Continuous	GP,W, B, (H), Y, G, B

*Special studies every 5 years.

MEASUREMENT	TARGETED PROBLEMS	ACTIVITY	AGENCY RESPONSIBLE	FREQUENCY	SUBJECT GROUPS
Food Consumption Measurements					
foods	inadequate nutrient consumption, excessive nutrient consumption, potentional exposure to contaminants	NFCS	HNIS/USDA	10 years†	GP, W, B, Y, G, S
		NHANES (24 hr recall)	NCHS/DHHS	10 years*	GP, W, B, (H), Y, G
		Food Usage Survey	FDA/DHHS	2 years	GP
dietary supplements	purposes and extent of use (re: deficiencies and excesses)	Dietary Supplement Survey	FDA/DHHS	2 years	GP
Food Composition Measurements					
food analysis	dietary adequacy (accuracy and completeness of nutrient information, trends in nutrient and non-nutrient content)	Nutrient Data Bank	HNIS/USDA	Continuous	GP
		Methods and Nutrient Content Research	ARS/USDA	Continuous	GP
		Total Diet Study	FDA/DHHS	Annual	GP
		Labeled Food Surveillance	FDA/DHHS	Continuous	GP
food fortification practices	dietary adequacy and excesses	Nutrient Data Bank	HNIS/USDA	Continuous	GP
		Labeled Food Surveillance	FDA/DHHS	Continuous	GP
		Total Diet Study	FDA/DHHS	Annual	GP
contaminants	food-related toxicity (due to food contaminants, heavy metals, pesticides and residues)	Total Diet Study	FDA/DHHS	Annual	GP

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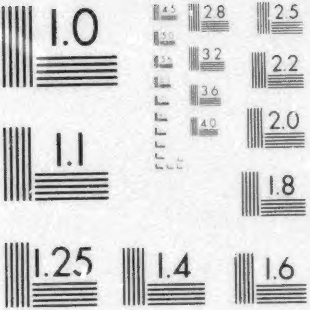
†Beginning in FY '85, NFCS will be converted to an annual survey of individual intakes, with periodic surveys of household food use.

MEASUREMENT	TARGETED PROBLEMS	ACTIVITY	AGENCY RESPONSIBLE	FREQUENCY	SUBJECT GROUPS
Dietary Knowledge/Attitudes					
infant feeding	infant malnutrition, exposure to toxic agents	NHANES	NCHS/DHHS	10 years*	GP, W, B, (H), Y, G
public interests/concerns	nutrition information deficits; problems in understanding information; nutrition related health concerns and impacts on dietary practices	Public Attitude Survey	FDA/DHHS	Annual	GP
food behavior	factors affecting diet quality and food habits	NFCS	HNIS/USDA	10 years+	GP, W, B, Y, G, S
Food Supply Determinations					
food production trends	long-term availability of appropriate foodstuffs	Supply data	ERS/USDA	Continuous	GP
nutrient supply	levels of nutrients in the food supply	Supply data	HNIS/USDA	Continous	GP
public purchasing patterns, demand studies	shifts in food consumption and price-consumption relationships	Supply data	ERS/USDA	Continuous	GP
		Food Usage Survey	FDA/DHHS	2 years	GP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MICROCOPY RESOLUTION TEST CHART
NATIONAL BUREAU OF STANDARDS
STANDARD REFERENCE MATERIAL 1010a
(ANSI and ISO TEST CHART No. 2)